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Transformative Possibilities: Transcending Interlocking Boundaries

2004/2005 McNair Scholars Online Journal

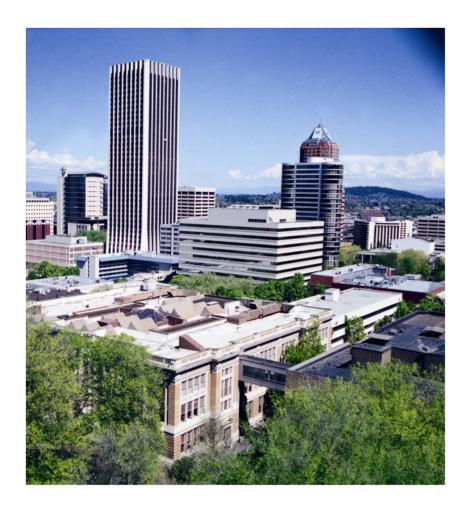
Volume 1











The Ronald E. McNair Scholars Program at Portland State University (PSU) works with motivated and talented undergraduates who want to pursue PhDs. It introduces juniors and seniors who are first-generation and low-income, and/or members of under-represented groups to academic research and to effective strategies for getting into and graduating from PhD programs.

The McNair Scholars Program has academic-year activities and a full-time summer research internship. Scholars take academic and skills-building seminars and workshops during the year, and each scholar works closely with a faculty mentor on original research in the summer. Scholars present their research findings at the McNair Summer Symposium and at other conferences, and are encouraged to publish their papers in the McNair Journal and other scholarly publications.

The Ronald E. McNair Post-baccalaureate Achievement Program was established in 1986 by the U.S. Department of Education and named in honor of Challenger Space Shuttle astronaut Dr. Ronald E. McNair. The program, which is in its seventh year on campus, is funded by a \$924,000 grant from the U.S. Department of Education and institutional cost-share funds.

The McNair Scholars Program's student-centered approach relies heavily on faculty and university commitment. Activities and opportunities provided by the program focus on building a positive academic community for the scholars while they are undergraduates at PSU

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Ronald E. McNair

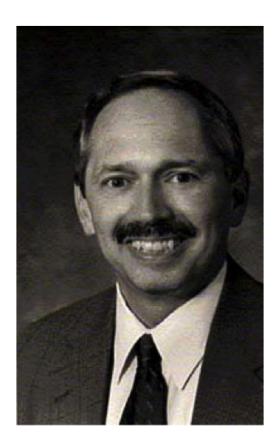


Ronald Erwin McNair was born October 21, 1950 in Lake City, South Carolina. While in junior high school, Dr. McNair was inspired to work hard and persevere in his studies by his family and by a teacher who recognized his scientific potential and believed in him. Dr. McNair graduated as valedictorian from Carver High School in 1967. In 1971, he graduated magna cum laude and received a bachelor of science degree in Physics from North Carolina A&T State University (Greensboro). Dr. McNair then enrolled in the prestigious Massachusetts Institute of Technology. In 1976, at the age of 26, he earned his Ph.D. in laser physics. His dissertation was titled, "Energy Absorption and Vibrational Heating in Molecules Following Intense Laser Excitation." Dr. McNair was presented an honorary doctorate of Laws from North Carolina A&T State University in 1978, an honorary doctorate of Science from Morris College in 1980, and an honorary doctorate of science from the University of South Carolina in 1984.

While working as a staff physicist with Hughes Research Laboratory, Dr. McNair soon became a recognized expert in laser physics. His many distinctions include being a Presidential Scholar (1971-74), a Ford Foundation Fellow (1971-74), a National Fellowship Fund Fellow (1974-75), and a NATO Fellow (1975). He was also a sixth degree black belt in karate and an accomplished saxophonist. Because of his many accomplishments, he was selected by NASA for the space shuttle program in 1978. His first space shuttle mission launched successfully from Kennedy Space Center on February 3, 1984. Dr. Ronald E. McNair was the second African American to fly in space. Two years later he was selected to serve as mission specialist aboard the ill-fated U.S. Challenger space shuttle. He was killed instantly when the Challenger exploded one minute, thirteen seconds after it was launched. Dr. McNair was posthumously awarded the Congressional Space Medal of Honor. After his death in the Challenger Space Shuttle accident on January 28, 1986, members of Congress provided funding for the Ronald E. McNair Post-Baccalaureate Achievement Program. Their goal was to encourage low-income and first-generation college students, and students from historically underrepresented ethnic groups to expand their educational opportunities by enrolling in a Ph.D. program and ultimately pursue an academic career. This program is dedicated to the high standards of achievement inspired by Dr. McNair's life.

Source: mcnairscholars.com

Terrel L. Rhodes, Principal Investigator



Dr. Rhodes is the Vice Provost for Curriculum and Dean of Undergraduate Studies at Portland State University. As such, he acts as dean of general education, oversees the undergraduate curriculum process, serves as the institutional liaison for accreditation, chairs the Advisory Committee on Academic Information Technology, oversees the community college relations initiative, alignment of student learning expectations with high schools through the Oregon University System Proficiency-based Admissions Standards System, the undergraduate research program, and the faculty vitality and course redesign initiative, including the Pew Charitable Trust funded Course Redesign project in Spanish at PSU.

He is the author of three books, numerous articles, book chapters and grant proposals. He received his B.A. in Political Science, History and Spanish at Indiana University in Bloomington, and his M.A. and Ph.D. in Political Science at the University of North Carolina at Chapel Hill.

2004-2005 McNair Program Staff

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Director

Toeutu Faaleava specializes in community mobilization and capacity building. His research interests are in reclaiming indigenous voices, spaces, scholarship and resistance. He teaches in University Studies and works with Pacific Islander communities in Portland. He holds a Ph.D. in Ethnic Studies, JD, MA, and BA from the University of California, Berkeley, an MPA from Harvard University and a BS from SIU.

Jeffrey L. Smith

2004 Coordinator

I was born and raised in Dayton, Ohio. After high school, I attended the University of Minnesota in Minneapolis. While visiting a high school friend living in Portland Oregon, I became enamored with the ocean, mountains, and deserts of Oregon. I packed up my belongings and made the cross country trek to Portland. I received a BA in Applied Linguistics and TESOL Certification in 1997 and am currently finishing an MA in Conflict Resolution.

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I am in the Post-Secondary Adult Education (PACE) Graduate Program in the Portland State University School of Education. My research interests include student experiences at large metropolitan universities, as well as student development and leadership. Outside of the office and the classroom, I enjoy jogging around my SE Portland neighborhood, watching TV and designing greeting cards.

Amrina Sugaipova

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I received my BA in Business and English from Lithuania College in Klaipeda, Lithuania. Currently, I am working on an MA in international Conflict Resolution at Portland State University. I enjoy studying languages, learning about other cultures and care a lot about human rights around the world.

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Project Title: Continuous Euler's Method for First-

Order Differential Equations

Mentor: Bin Jiang

Comparative Colonialsims: Variations in Japanese Colonial Policy in Taiwan and Korea, 1895 - 1945

by Gunnar Abramson Faculty Mentor : Linda Walter

Japan's seizure and early governance of Taiwan and Korea, both of which would become its most important subject territories, is widely understood by historians as being informed by the context of late nineteenth century "new" imperialism. The belief, widely held in the West at the time, that the measure of a nation's strength was dependent on the reality of its political control over territories outside of the metropole, was accepted by Meiji era Japanese elites. Believing that they had, in large part, successfully navigated the inaugural decades of a wide ranging policy of promoting economic modernization, these elites could more confidently hope that their nation's recent technological, educational, and economic strides would translate into a capacity to project power outwards. Based on such confidence that, owing to it's growing modernization, Japan had truly escaped the lot of the colonized in Asia and, moreover, could enter the ranks of the colonizing nations, rhetoric justifying colonialism on nation-strengthening grounds was more attractive near the century's close.

Japan's adoption of this overall justification for movement overseas and its subsequent expansion was consistent with the dominant trend of the age during which both took place. Both time and circumstance affected the creation of the early Japanese Empire to make its composition rather inconsistent with other empires of the period. Also, Japan's rather late entry onto the modern world stage towards the latter portion of the second half of the 19th century – after over two centuries of prior European colonial activity - precluded a wider array of territory available for the taking. Additionally, Japan's lesser economic power relative to expanding Western nations in the late 1800s meant a comparative inability to sustain colony-acquiring expeditions far from home. Taken together, Western domination of empire building in the Asia-Pacific region and Japan's limited reach steered the country's earliest land grabs toward the region geographically nearest Japan itself, rather than toward more far flung locales. The nearness of Japan's earliest major colonies, the first, an island due south of the home islands and just off the coast of China, and the second a peninsular nation nearer Japan than any other country, was crucial to their conquest by Japan. Close proximity to the conqueror obviated the need for Japan to mount a far off campaign of conquest. Indeed, the

close location of Taiwan and Korea meant that Japan's initial seizure of them, as well as it's ability to sustain political and military control over them, was never much hindered by the longer supply lines to the colonies that were endured by some Western powers. It is feasible to interpret the seizure of Taiwan and Korea as at least partially due to both lands being among the few portions of Asia available for colonial acquisition by the time of the emergence of a Japanese willingness and ability to expand. Security concerns also played a role in Japan's choice of early colonies, especially in the case of Korea. Japan's expansion onto the peninsula was as much a function of attaining total control over a piece of strategic real estate geopolitically important to the security of the home islands themselves as other motives.²

The earliest Japanese colonies were not only geographically close to Japan but culturally close as well, being populated by peoples sharing, most notably, Chinese literary, cultural, and religious affinities such as Chinese ideograms, Confucianism, and Greater Vehicle Buddhism. Japanese colonizers of the late 19th and early 20th centuries did not deny their nation's similarities with their newly won subject peoples and often spoke of a desire to lead Taiwan and Korea out of decrepitude to modernity just as the Japanese themselves had modernized from 1868 onward. Both the main Western justification for colonialism that Japan adopted - which explicitly reserved the right for more advanced peoples to control lesser ones - and the slightly more altruistic tone of the desire to lead fellow East Asians evoked by feelings of racial and cultural similarity, preserved the ultimate power of Japan.³ Japan's governance of Taiwan and Korea was informed by both kinds of rhetoric. The more European style of colonial governance, closer to the first justification, guided Japanese colonial administrators - especially early on. The subject peoples' inherent inferiority to their Japanese masters was believed to make an administration which moved colonial peoples only gradually toward political, cultural, and social assimilation with metropolitan Japanese, preferable to one of rapid integration of the colonized with the colonizer. The other approach, which merely emphasized Japan's cultural sameness with its Asian colonies during the earliest period of Japanese colonialism, later grew more insistent about the Asian provenance of the Empire. As developments in the wider world eroded Japanese colonizers' confidence that sufficient time needed to work would be available for the earlier colonial policy, in the European vein of association, this approach turned into justification for a change in policy from association to fast-track assimilation.

Though this shift in Japan's approach to the governance of its colonies took place in both Taiwan and Korea, significant differences in the effect of each approach underscores the very different environments in each location and the consequently different challenges, peculiar to each,

that faced the colonizer. The internal makeup of each colony, as well as its immediate pre-colonial history, gives some understanding of these challenges.

Taiwan's peoples presented a heterogeneous population. Though ruled by the mainland Qing dynasty as an adjunct to a coastal province from 1683-1885 and as a province in its own right from 1885 until Japanese occupation, it remained fragmented, restive, and difficult for Chinese administrators to govern. Although the initial years of Japanese administration would also be forced to contend with this traditional Taiwanese resistance to outside authority, the lack of an island wide identity or a pre colonial political order that commanded islanders' allegiances worked to Japan's advantage. Governing Japanese, hoping initially to compel islanders to submit to their authority or, slightly later, to encourage the islanders' more active support of the colonial infrastructure, therefore did not have to compete against the entrenched, xenophobic, pre-colonial identity that had continued to exist in Korea after it's annexation in 1910. Attitudes on the part of the colonial elite in both Taiwan and Korea were shaped by such basic differences within the colonies themselves as well as by the different ways each possession was conceived of in terms of strategic concerns of the metropolitan government. The Korea Government General, for example, was headed by Army Generals from annexation until the end of WWII.4 These Generals rebuffed liberal attempts to reform colonial policy in the 1920s and asserted the appropriateness of their military rule by citing Korea's greater geopolitical importance to Japan's safety over that of Taiwan.⁵ The slightly lower strategic priority given to Taiwan by the military and military-minded civilian policy makers meant that directives from the homeland were more closely followed on the island than on the peninsula.

The often-contrasting policies pursued by Japan in Taiwan and Korea were planned, insofar as there was an element of colonial policy that responded to strategic and political concerns in the homeland. The policies were also responses to the reality of the level of acceptance or resistance to Japanese occupation in each of the colonies which was dependent as much on the innate political and cultural idiosyncrasies of each colony as on policies enacted by Japan after colonization.

Taiwan: Frontier Island to Colonial Showcase

Early Chinese settlement of Taiwan began largely in the early 15th century with the end of earlier Ming Dynasty prohibitions on Chinese maritime activity. The western coast of Taiwan proper, as well as the Peng-hu islands ninety miles from Taiwan between the island and the mainland, became settled by farmers who planted and tilled pristine ground there during the spring and summer months before retiring to their homes on the mainland during winter.⁶ Fisherman from

Fujian, the Chinese province directly across from Taiwan, also began living in the Peng-hu islands while they plied the surrounding waters every year during peak fishing season. During this time of seasonal Chinese settlement, however, no formal Chinese government writ ran on either Taiwan or nearby islets. The fact that Taiwan existed beyond the grip of the Emperor was at least a partial incentive for Chinese to begin immigrating. Other motives, at least early on, naturally included the plentiful amount of land available for the taking and the promise of few obstacles to settlement, save for resistance from scattered inland aborigines. The arrival of the Dutch East Indies Company on the island in 1624 accelerated the process of Chinese migrations across the Taiwan Strait. Though requiring up to ten percent of the crops yielded by both permanently settled and migrant Chinese farmers and requiring that those hunting the island's deer first obtain licenses, which became a key source of revenue to the Dutch, Chinese migration continued. By some estimates Taiwan's Chinese population grew as much as fifty thousand during the period.⁷

Sent to Taiwan via self exile from a mainland invaded by ethnic Manchus - founders of the Qing Dynasty -Ming Dynasty loyalist Zheng Chenggong evicted the Dutch in 1661 and converted Taiwan into a redoubt from which he hoped to take back the mainland for the Ming. After Zheng's death a year after his rule on the island, internal power struggles weakened his followers through the heavy-handed reaction of the Qing to political supporters of Zheng's on the Fujian coast. This amounted to forced relocation and swelled Taiwan with even greater numbers of refugees.⁸

The weakening of Taiwan's administration among Zheng's followers caused serious defections to the mainland within the armed forces - the centerpiece of any realistic bid for reclamation of China - precipitated eventual collapse in 1683. The victorious Qing opted, largely at the behest of Shih Lang – the conqueror of Taiwan for the mainland and former lieutenant of Zheng's – to rule the island as a district of Fujian Province.

Taiwan soon gained a reputation as a hardship post for Qing administrators. Clashes between Han Chinese settlers and aborigines, riots directed towards representatives of the central government, and conflicts among Han migrants of similar affiliation were commonplace. Over the course of the era of Qing control over the island, Taiwan experienced some 159 disturbances of varying type and size. Eventually, Taiwan became synonymous with instability and civil disturbance even among mainlanders. The island quickly came to be described as a place of overall lawlessness where, "Every three years [brings] an uprising, every five years [brings] a rebellion."

The maintenance of central Imperial control over Taiwan was not only made difficult by the lack of central government institutions on the island but also because the migrants, who came to form a

majority on the island during the Qing period, had an entirely different outlook than Qing civil servants. The so-called Great Tradition, or the normative hierarchy, which denigrated merchants and exalted farmers and the scholarly class had been accepted as the ideal by successive Chinese dynasties after Confucius. It was little followed in Qing dynasty Taiwan, however, which had been populated by Chinese eager to escape the cultural strictures of the mainland. In addition, those brought from the mainland to run what little machinery of government existed on the island were not only of usually lesser quality than their mainland-posted counterparts, but were also products of a civil service that drew upon the Great Tradition for the training of prospective civil servants. Consequently, those agents of the Imperial government on Taiwan believed in the legitimacy of a normative hierarchical system and accompanying worldview entirely appropriate to most of the mainland with the exception of the coastal environs of Fujian. By contrast, most transplanted Taiwanese on the island, by virtue of their having migrated in the first place, at best ignored and at worst saw that system as a wrongful imposition worth rebelling against.

The Imperial government's preference to loosely control Taiwan in order to avoid costly military involvement on the island was tested by the first decades of the 1800s. Western powers began to exert pressure on China for trading rights within the country and Taiwan as well. By the 1860s the island ports of Tamshui and Anping were opened as treaty ports to western merchants, missionaries, and diplomats. In response to the these newcomers arrival, Qing bureaucrats began to fear that diffuse Imperial control over the island could lead to it's seizure by a western colonial power. Such fears did inspire some measures to better fortify Taiwan against invasion by western expeditionary forces but did not prevent interventions by western trading powers in the latter half of the century. 12 Japan conquered the northern half of the island in response to the deaths of shipwrecked Ryukyuan fisherman in 1874 at the hands of Botan aborigines and France threatened to seize the island as an indemnity after victory over China during the 1884-85 Sino-French War. The gains made by the French impelled some in Beijing to press for the inclusion of Taiwan within China as its own separate province – a move completed by the end of 1885. Attempts by Taiwan's first and second Qing Governors to modernize the island laid the first tentative foundations for further achievements to be undertaken during the Japanese colonial period in the form of railroads, telegraph lines, and improved port facilities. Still, Qing power remained weak relative to the rest of China and Taiwan's Chinese population as internally divided as ever. 14

Taiwan's continued existence as an effective frontier province up to the time of Japanese annexation in 1895 would prove to be a fortuitous reality for incoming Japanese colonial

administrators. As in all lands newly conquered by expanding powers at the time, a major goal of the Japanese colonial proconsuls was the establishment and maintenance of law and order on the island following their seizure of it. The lack of a coherent Taiwan political identity would ensure no clear focal point of resistance to the imposition of colonial rule during almost the entirety of Japan's dominion over Taiwan. Since Japan, owing to its greater technological and military strength, would succeed in more effectively controlling the island than had ever been possible during the Qing administration, many islanders seemingly acquiesced to the reality of Japanese control. This led to instances of effective anti-colonial resistance dwindling after a few short years. Coupled with native Taiwanese quiescence to Japanese authority, modernization begun under the Qing, but much accelerated under Japan, served as a kind of mandate for Japanese rule on the island. Altogether, Taiwanese came to recognize that outright violence against Japan would ultimately be fruitless. This recognition of the futility of physical resistance set the stage for later reform movements directed toward increasing Taiwanese participation in the island's governance – though strictly within Taiwan's identity as a subject territory.

Japan's decision to intervene on the Korean peninsula, ostensibly to protect Japanese lives and property during the millenarian Tonghak rebellion, occasioned the start of the First Sino-Japanese War in 1894. The conflict would ultimately yield Taiwan to Japan as the latter's first Imperial possession. Taiwan was never a real objective of Japan's war aims at the conflict's outset; it was Korea that most concerned military and political planners in Tokyo. The declining fortunes of the Korean Yi Dynasty portended a possible scramble on the part of major colonial nations to attain control of the peninsula. A destabilized Korea lying just across the Tsushima straits from the Japanese home islands was ominous enough to Meiji leaders, but Korea in the hands of a Western power might be disastrous.¹⁵ The immediate Japanese aim of the hostilities with Qing then, was to forestall Korean domination by a third country. However, as Japanese victories multiplied over the course of 1894 and Qing forces retreated in disarray, pressure mounted within Japan for territorial concessions from the Qing after final victory. Nevertheless, Prime Minister Ito Hirobumi and his Foreign Minister worried about Western intervention should Japan's advance threaten to imperil the Qing hold on power which would endanger the trading interests of Western governments in China.¹⁶ The government still felt impelled by public demand to gain some territory after hostilities ended. It was believed that Taiwan could be taken without incurring Western intervention. Although high ranking Army commanders, who were disposed toward believing in Korea's greater strategic

importance, thought the island too inconsequential a prize given Japan's wartime sacrifice, the decision was made and the island was invaded in June, 1895, as peace negotiations occurred. Naval figures, contrasting the opposition to invasion of the island by their Army counterparts, supported Hirobumi's decision and referred back to the effectiveness with which the French were able to blockade the Chinese mainland from the island in 1885. Should Japan not conquer Taiwan now that the time was right, prominent Navy men argued, a Western power could very well do so in Japan's stead and then be in a position to put pressure on the southern home islands of Kyushu and Shikoku, as well as Okinawa. Ultimately, support for the taking of Taiwan was assured by the acceptance of the Western justification for colonialism by Meiji policymakers as well as by the masses. Bearing in mind that treaties guaranteeing extraterritoriality to foreigners in Japan remained in force in 1895, it was hoped by foreign policy jingoists and political moderates alike that the creation of an empire, run in the style of Western imperialism, could help rescind such treaties. Efficient control over other lands could, by implication, demonstrate Japan's newfound strength and consequently, the treaty's inappropriate application. The style of the treaty's inappropriate application.

Despite the lack of any coordinated opposition to Japan's invasion amongst large sections of the island population, violence *was* still present at the opening stage of Japan's colonial suzerainty over Taiwan. Expeditionary forces fought village-based guerillas as well as mainland based militias. The entirety of the island was brought under Japanese sway with the taking of Tainan in the south by October of 1895. In keeping with the early emphasis on military operations and the extraordinary island-wide conditions believed to necessitate them, the first governor-generals of Taiwan instituted a large-scale policy of bandit suppression. The Triple Guard System predicated a policing of the island using military forces to patrol rural areas and police to patrol the cities while areas between municipal outskirts and open country were the responsibility of either force, depending on need. Taiwanese casualties mounted and the draconian tactics practiced under the Triple Guard approach, even by most Japanese accounts, did little to dent criminality or anti-Japanese agitation in most areas. Sometimes the tactics transformed once placid areas into locales rife with anti-colonial sentiment.²²

Despite a fairly heavy-handed initial approach toward the local populace, the first two military governor-generals were not entirely focused on achieving control through strictly military means. Islanders wishing to leave after cession to Japan on April 17th 1895 would have two years to do so.²³ The effect of this grace period for out-migration rid the island of Chinese who thought life under Japan was intolerable. Those that stayed were not necessarily pro-Japanese, but those who

elected to stay on Taiwan after 1897 implied some form of acceptance of Japanese rule. The outmigration of those who would otherwise have fought the new order advanced the cause of supplanting the barely constrained chaos of the Qing period with the order promised by Japan and its earlier colonial bureaucrats, imbued with a belief in "scientific colonialism" and "association."

The arrival of the fourth military governor-general of Taiwan in February 1898, Kodama Gentaro, announced a marked change in the attitude of Japanese authorities to islanders. The days of bandit suppression were brought to a close as well as the Triple Guard System that had attended them.²⁴ In place of counter-insurgent operations, the new Governor and his civilian chief of the Civil Affairs Bureau, Goto Shimpei, embarked on a different program. The new order took much from the commonly held doctrine of gradual assimilation, common among colonial theories of the day, as well as from Goto's fondness for applying "scientific principles" to the domination of subject peoples.²⁵

Goto had studied medicine in Germany; his belief that biological laws could be applied to politics as well as the physical world may have originated there. Indeed, some historians have noted intriguing parallels between Goto and Bernhard Dernburg of brief German colonial fame. Both men shared an interest in governing territory as a kind of laboratory within which colonial administrators could interpret the outcomes of specific policies similar to the way technicians could determine the validity of a hypothesis through experimentation.²⁶ To Goto, successful experimentation followed data collection and good synthesis of the accurate information collected. Visitors to his quarters in Taipei - renamed Taihoku after 1895 - were struck at his collection of works on colonial theory from a wide variety of sources. The large library, fairly comprehensive for the time, was just one indication that Goto's lessons to his subordinates on the importance of information were wholeheartedly followed by the man himself.²⁷ As much a part of his general approach to colonial civil administration, however, was his belief in the inefficacy of a colonial government pursuing too fast a policy of assimilating a subject populace into mirror images of those in the metropole. Like almost all of his compatriots in the Government-General, Goto believed that the ultimate goal of Japan's colonial endeavor, aside from resource extraction and occupation of areas of strategic import, was assimilation of the natives into normative Japanese. In this, he favored a gradual process. Before the 1930s, he and other officials, in both Taiwan and later in Korea expected that true assimilation might be a process of hundreds of years.²⁸ It followed from this reasoning that pushing for that ultimate objective unduly hard or fast might engender widespread rebellion of the native elites that could then imperil Japan's hold on power in the colonies as a whole. To Goto, this fear of meddling too far or too fast in the traditions of Japan's conquered subjects was due to two beliefs. One was that only sufficient time could bring about a colonial peoples' social and cultural absorption into the metropole. Another was his acknowledgement of the effect of the marked cultural similarities to Japanese that the Taiwan Chinese had.²⁹ Japanese colonial policy did not have to move too fast, he and his successors opined, as unlimited time would be available. Goto shared this conceit with other early Japanese colonizers. More interestingly, according to Goto, Chinese cultural affinities with Japanese meant that the majority of Taiwan's inhabitants were already well positioned for assimilation even prior to Japan's arrival on the island, thus Japan did not have to move too quickly to achieve its assimilationist goal.³⁰

During his tenure as head of Taiwan's civil affairs planning, Goto combined, in a series of policies, his appreciation of the Asian cultural provenance of the island's Chinese with his desire to avoid unduly antagonizing the populace to the ultimate ideal of a Taiwan joined culturally to the home islands. The first policy was both a reaction to the ineffectiveness of the Triple Guard System that had taxed Japanese troops and civilian police and was a reflection of Goto's belief in the wisdom of perpetuating native traditions where they happened to converge with Japanese interests. The pao-chia system of household and village responsibility and security had been utilized by Taiwan's Chinese from the very beginning, having been first utilized on the Chinese mainland since the Qing takeover in 1644. Despite sometimes being impossible for the Qing to implement effectively, given the size of the Chinese landmass, the system as transplanted to Taiwan proved more effective, given Taiwan's smaller area. Abortive attempts undertaken from 1895 - 1898 to organize "self-defense associations" within villages targeted by anti-Japanese bandits had not gone according to colonial authorities' hopes. Goto, shortly after settling at Taihoku read the Complete Book on Benevolence in the original Chinese, which offered an outline of the pao-chia system. In order to lend momentum to the system's adoption, Goto ordered the work translated into Japanese by the government's Commission for the Investigation of Old Customs.³¹ The formation of individual family properties into groups of ten households each (pao) and ten pao into one (chia), made the villagers themselves responsible for law and order within their local areas. In addition and even more effectively, for Japanese purposes, the system mandated mutual responsibility.³² The Government General's adoption of pao-chia, hoko in Japanese, meant that Japan now expected that Taiwanese engaged in sedition would incur punishments on their families and neighbors as well as on themselves.

The Government General's approach to the education of Taiwan's Chinese majority, like the adoption of the boko system, was also a mixture of more than one assumption of early Japanese colonialism. In the context of education policy, the Government's establishment and encouragement of Common Schools - as distinct from Chinese language private schools - was clearly calculated to instruct Taiwanese students in the proper way of the Japanese subject. To that end, Japanese language instruction was stressed, but colonial teachers were still careful to evince respect for thoroughly Chinese elements such as study of the Classic of Filial Piety. 33 As much as anything, this and other concessions to the overwhelming Chinese component of the island's majority culture were intended to attract traditional Chinese parents to the idea of sending their young to the common schools and thus slowly starve the private schools of students and the means to continue.³⁴ By 1920, a quarter of Taiwan's school age population was estimated to be attending Japanese run Common Schools. Private school enrollment of Chinese youth would steadily diminish until the government mandated the closing of all private schools in 1943.35 More to the point of ameliorating local elites, the Government under Kodama began to fete local notables, holding public ceremonies to recognize them as gentry-scholars of note. Further rewards included the awarding of medallions to mark the occasion.³⁶

Dissent from early Japanese colonial thought, as actualized through the policies put into place by Goto and his immediate successors, began in the second decade of the twentieth century. Government bureaucrats, journalists, parliamentarians, and Japanese educated Taiwanese were the principle groups involved in the agitation for change in colonial policy. Perhaps paradoxically, they buttressed calls for change with rhetoric that had been a central component for the rationalization of Japan's Empire since its inception. The principle of <u>isshi-doujin</u> – "impartiality and equal favor [for all subjects of the Emperor]" - had emerged during the Meiji Restoration. The phrase was naturally highly ambiguous. Many have noted in the years following the dissolution of the Japanese Empire that the phrase could be used to press for equal rights for all the Empire's subjects on the one hand, or to emphasize every subject's duties and obligations to the sovereign on the other. To some, true achievement of the principle of isshi-doujin could only come after a period of meaningful interaction between Japanese and colonial peoples.³⁷ Mochiji Rokusaburo, an ex-colonial bureaucrat, had echoed sentiments not entirely at odds with early Late Meiji Imperialist notions in his early writings when he tied Japan's international reputation to effective and judicious colonial government, neither too exploitative, nor too lenient toward the natives. By 1912, however, he argued for more specific moves to engender real assimilation, or at any rate, his definition of proper assimilation and achievement of *isshi-doujin*. Mochiji argued that the Japanese colonial elite needed to be less clannish in their living arrangements in the Empire and make an effort to interact with the locales so as to imbue them with "Japanese Spirit." Mochiji would foreshadow the later Pan-Asian movement when he linked successful integration of Asian colonial peoples with Japan - through interaction between both colonized and colonizer - with Japanese expansion itself.³⁸ Such thinking went further than Goto's earlier acknowledgement of Asian cultural similarity between Taiwanese and Japanese and the boost such similarities would give to gradual assimilation. Mochiji had implied that future Japanese expansion could be justified as a process of encouraging cooperation among East Asians rather than according to the conventional European view of association.

Within and without the home islands, a legal variant of isshi-doujin began to be voiced by 1910s and 1920s. Legislators, newsmen, and other opinion makers within Japanese society began to question the correctness of limiting the Meiji Constitution's application to the colonies. Advocates of full Constitutional applicability in Taiwan and Korea did not dispute the caveat that only those two colonies could be legally subject to Constitutional largesse, having been colonized in the name of the Emperor. By contrast, Japan's South Pacific Islands - ceded to Japan by League of Nations Mandate - were not obtained by treaty in the name of the sovereign.³⁹ They instead remained focused on the contradiction in terms between the letter of the Treaty of Shimonoseki – spelling out Japan's claim to Taiwan - and the Treaty of Annexation, which clarified the nature of Korea's takeover, and the merely selective application of the Constitution in both places. Originally promulgated by the Taiwan Government General in 1896, Law 63 gave sweeping powers to the Governor and contravened the nominal island wide authority of the Meiji Constitution as was stated in the Treaty of Shimonoseki. 40 After the law's extension in 1899, 1902, and 1905 largely because of perceived lawlessness on Taiwan, the Diet nullified the law and placed the Governorship securely under the Colonial Minister. However, Government House would retain significant powers and apply the Japanese Constitution to island affairs only when it felt the document would not constrain its powers. 41 Doubtless the effect of pressure by supporters of wider constitutional authority within the so called "sovereign" colonies had little overall effect on the Constitution's place in Taiwan's governance. When compared to the aftermath of such agitation in Korea however, successive Army Governor-Generals were able to make a complete end run around the Constitution by invoking the importance of a free hand as being necessary for effective Japanese control over a location of such high strategic importance. The conventional view of Taiwan's lesser strategic importance within

Japan may have left Taiwan's overlords with no equivalent excuse for such a salutary avoidance of constitutional authority.⁴²

In tandem with reformist efforts directed toward the colonies from within the homeland there emerged a number of groups proposing greater rights for Taiwanese on the island. Initially the groups were led by young Japanese-educated Chinese who, with Government encouragement, called for the abolition of old pre-colonial practices including the wearing of queues, foot binding, and opium smoking. Though not all groups wished Taiwan to be assimilated into another prefecture of metropolitan Japan per se, they nevertheless saw Japan as a giver of modernity to their island and thus were not greatly opposed to Taiwan's legal inclusion within the modern metropole.⁴³ However much these groups' specific goals may have differed with the assimilationist rhetoric of Japanese liberal reformers, both sides saw enough commonality of purpose to decide to work together. Yet assimilationist parties on Taiwan would be short lived as the groups quickly ran into vitriolic opposition from Japanese settlers on the island unwilling to entertain the possibility of Taiwanese enjoying, de jure, all the rights they hoped to keep to themselves. Opposition was also great from colonial bureaucrats, many of whom echoed Goto's earlier belief that encouraging such groups would mean the Government's tacit approval of faster assimilationist methods, thus setting the scene for violent native resistance. Still others argued for greater attention to the responsibilities of the colonial subject before equal rights could be discussed.⁴⁴

Discussion over the proper management of colonial peoples from the First World War to the end of the 1920s was made moot by the acceleration of wartime demands following Japan's increased involvement in China. From 1931 on, and particularly from late 1936 until the end of WWII in August 1945, it became readily apparent to colonial governments that the time needed for long-term assimilation to come to fruition could not be assured. Slowly facing this reality and needing to press the colonies into service as sources of men and material for Japan's accelerating war-effort, colonial bureaucracies began implementing the *kominka* campaign, a program to rapidly turn subject peoples into loyal, thoroughly Japanese, subjects of the Emperor. The gravity of the international situation Japan now found itself in was first of all reflected in the reversion in 1936 to the appointment of active duty or retired military men as Taiwan Governors after a long period of civilian career bureaucrats holding the post since 1919. Interestingly *kominka* in both Taiwan and Korea can be seen as yet another interpretation of the extension of *isshi-donjin*. In the case of this newest program, however, the aim was not the duplication of the rights available to subjects of the metropole in the colonies but rather insistence on a complete cultural merger of Taiwan and Korea

in the image of the homeland. Just as importantly, in view of the increasing need for the colonies to shoulder an increasing burden of service to the war effort, the *kominka* movement pressed for the extension of the full obligations of the Japanese subject to all colonial peoples. In Taiwan the *kominka* movement was ushered in directly after the arrival of retired Admiral Kobayashi Seizo as Governor General in September 1936. The former Naval Officer proclaimed the inauguration of the movement within the colony as one policy of a three policy agenda to be pursued by his office to further industrialize and fortify the island.⁴⁷ The movement was announced in Korea sometime later through an oath to be made by Koreans affirming their loyalty Imperial Japan as its subjects.⁴⁸ The absence of such an oath in Taiwan has suggested to some observers that the loyalty of Taiwanese toward Japan was never clearly doubted by the colonial authorities, which was not the case of Korea. The latter colony, in spite of equivalent modernization completed under Japanese auspices, continued to demonstrate much antagonism to colonial imposition. Whatever the actual reasons for the use of an oath to assure loyalty in Korea and such a document's absence in Taiwan, the Taiwanese reaction to the sub-movements under the umbrella of *kominka* policy were different than in Korea even though the government's directives were essentially the same.

Overall, *kominka* in both colonies consisted of four distinct policies. "Religious reform" meant the discouragement of traditional local beliefs and the substitution of State Shinto in their place. The "national language movement" was intended to denigrate the speaking of local languages in favor of Japanese. The "name changing movement" outlined the mandatory taking of Japanese names by the colonial population, and the "military volunteers movement" was designed to encourage active colonial participation in the war effort through voluntary enlistment in the armed forces.⁴⁹

The "religious reform" plank of the *kominka* agenda, as pursued in Taiwan, attempted to wean all Taiwanese away from traditional beliefs. The island's Chinese majority saw its traditional religious practices, a syncretic blend of Taoism, Mahayana Buddhism and Confucian morality, criticized by Japanese authorities. Chinese' funerary practices were also inveighed against as "unclean" and the population in question was encouraged to adopt cremation or Shinto funerary rites instead of their longstanding custom. More draconian tactics pursued by Governor Kobayashi to force Shinto on Taiwanese, which included demolishing Taoist temples, were halted by Kobayashi's successor, though less extreme forms of coercion toward the practice of Shinto continued. Those in authority hoping to spread Shinto's roots on the island found the way hard going. Local resentment against Government support of Shinto was never as violent as in Korea but

shortly after this point and the volunteer movement remained in place until early 1945 when the exigencies of the grim war situation for Japan forced the conscription of all male, military age Taiwanese who could be spared for service.⁵⁷

Overall, *kominka* was never as qualified a success in Taiwan as its planners hoped, but it was much less resisted than in Korea. It is no doubt a credit to the widespread perception among islanders that Japanese colonialism benefited them that, in spite of being forcibly compelled to quite literally become Japanese from 1937-45, Taiwanese would remember Japanese rule almost with fondness in the years directly after the war.

Korea: Hard Going

In marked contrast to the style of governance employed in Taiwan, Japan generally ruled Korea in the colonial period with a greater resort to force for several reasons. Perhaps most importantly, uncharitable Korean views of Japanese intervention were informed by the pre-colonial political experience - almost entirely the opposite of peripheral Taiwan. Korea, by the beginning of the period of major Western expansion in East Asia, had been securely within the orbit of Qing China. Its own Yi Dynasty, having ruled since 1392, had created a peninsular nation wherein the Great Tradition - never successfully a part of the average Taiwanese world view - was tightly enforced via a four step caste system.⁵⁸ This system also played a leading role in Yi Dynasty Korea's view of its place in the world. The Yi King recognized Korea's place essentially as a highly autonomous vassal state having a tributary relationship with the Qing court. Japan's emergence as a modern state during the 1860s and 1870s was difficult for the Yi court under the rule of Taewongun - regent to the young King Kojong - to even conceptualize, let alone accept. The reason for such difficulty had much to do with Korea's view of China as the center of power in the world. The change in the Japan-Korea relationship from a relationship between a disunited island nation ruled only at some distance by a Shogun and a proud appendicular kingdom to China was occasioned by Japan's notification of the "restoration" of its Emperor and accompanying unification and modernization. The court in Seoul, long used to conducting business through the Japanese daimyo at Tsushima with the occasional recognition of the Shogunate's authority, assumed Japan now wished to claim Korea as its vassalage. Hence, the modern relationship between the two nations began over a dispute based upon two irreconcilable normative views of statecraft and what the term "relations" meant. To a Japan eagerly pursuing recognition as a thoroughly modern power worthy of respect by Western powers, Korean insistence that Japan's pursuit of "modern" bi-lateral relations from a 19th

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century Western standpoint was actually an attempt to subordinate Korea under an outmoded conception of statecraft, was perplexing.⁵⁹ Clearly, according to many of the Meiji oligarchs then in power, Korean intransigence and unwillingness to open itself to Japan and see Japan as its equal, was an egregious insult. To the Yi court, which defined itself as a loyal tribute state to China, Japan's newfound belief in itself as "modern" was equally bizarre; its request for relations outside the hierarchical structure of Great Tradition statecraft was downright arrogant. Thus grudges were nursed by both sides from the first rumblings of Japan's eagerness to adopt a bigger role in the world as a united nation. Some Meiji leaders opted, after the initial Korean brush-off of the 1860s, to "subdue" the country and thus avenge the earlier slight. Yet not all were of one mind as to how to go about "subduing" Korea. Initial plans called for a punitive invasion that would double as a diversionary tactic for the Government to draw the attention of disenfranchised Samurai away from the recent moratorium on their government stipends.⁶⁰

Fortunately for Korea, the non-interventionists within Meiji cabinets of the early 1870s gained a deciding hold over Korea policy. Consequently, the mention of such an expedition was dropped out of concern that Japan was not yet strong enough to tackle the Qing over Korea as well as concern over the reaction of Western powers. Less emotional circumstances than returning a diplomatic slight were also at the forefront of emerging Japanese policy toward Korea. Great Power activity in the area convinced many Japanese leaders early on of the necessity for a special Japanese relationship with the peninsula, since monopolization of Korea by untrustworthy Westerners would severely impinge on Japan's own security. Such talk had begun in earnest with the arrival of a Russian warship at Tsushima prior to the Restoration. It had only grown in the context of Japan's emerging modernization and Korean rebuffs to Japanese requests of normal relations subsequent to 1868.

Aspirations among many Meiji era politicians and thinkers for a technological and cultural uplifting of Korea under Japanese aegis were equally strong persuaders for an interventionist policy toward the country. Korean regent Taewongun's refutation of Japan's description of itself as achieving modernity caused Meiji opinion-makers to defensively disparage Korean culture, knowledge of the outside world, and technological prowess. Such invidious comparisons of Japan to Korea were not an end in themselves, rather, many prominent voices inside and outside of the government hoped, Korea could be changed from the inside out under the watchful eye of Japan. Just as in Taiwan, almost all Meiji personalities recognized the inherent cultural similarity between

Japan and Korea but used this acknowledged similarity to lend urgency to their desire to modernize Korea through means of Korea's own "Restoration", via Japanese tutelage.⁶²

These feelings of highly paternalistic sympathy among some Japanese elites for Korea remained after Japan wrangled open select Korean treaty ports after 1876 – an act that was rightly seen as echoing the forcing of Western "unequal treaties" upon Japan in the 1850s and 1860s. Nevertheless, close comparisons came to be made by Meiji oligarch's between the Korea they encountered and their own fresh memory of Japan's recent past. Fukuzawa Yukichi, a junior ranking Samurai/turned Restorationist/turned founder of Japan's largest private university, sentimentally compared the visit of a Korean delegation to Japan in 1881 with Japan's 1861 mission to the West in which Fukuzawa had played a part. Even Fukuzawa's ruminations about a preferred Japanese approach to Korea began to harden. They were expressed most clearly in his memoirs where he urged Japan to "get out of Asia" and begin to treat less civilized Asian nations as contemptuously as did the West.

The geopolitical considerations that had framed the earlier debate over punitive action against Korea in 1873 were again raised by Imperial Army Chief of Staff Yamagata Aritomo in 1902 after Qing China's 1895 defeat in the First Sino-Japanese War. Yamagata echoed his Prussian advisor's earlier estimation of Korea as "a dagger" pointed at the home-islands. To the minds of Yamagata and his like-minded peers, the only suitable way to sheath the offending dagger was through outright Japanese control.

China's defeat not only removed a significant contender with Japan for power in Korea. The very idea that "upstart" Japan could defeat Asia's largest land-based Empire gave further credence to the growing belief that Japan was the new center of East Asian power. By virtue of China's humiliation, some thought it should also become the towering example of modernity for the emulation of Japan's neighbors.

Supporters of Japanese Korea policy championing reform - as distinct from colonial conquest - still maintained sufficient political support to fend off the likes of Yamagata and others, but the primary exponent of reform, Prime Minister Ito Hirobumi, felt compelled to reach a happy medium with harder edged elements of the government. The result was a Japanese Protectorate begun in 1905 after the defeat of Russia, overseen by a Japanese Resident General. The continuing Korean behavior of playing Japan off against other competing powers occasioned an initial Japanese response to Korea's annexation in 1910, every bit as brutal as the bandit-suppression raids seen in Taiwan.⁶⁷ The Japanese response to anti-Japanese resistance was likely as brutal as it was owing to

the very different nature of the Korean resistance from that on Taiwan. Whereas Taiwan's peripheral relationship to China's central government and the ruling ethic of self interest on the island diffused resistance, the reality of Korea as a kingdom of its own focused resistance as it could never be in Taiwan. The main form of colonial Korea's first violent opposition, the uibyong, or Righteous Army, concentrated the energies of Japanese forces.⁶⁸ The perception on the part of Japanese authorities that they oversaw a colony that was essentially an armed and hostile country deserving only of military Governorship and administrative independence from the metropole government was thus easily reinforced. Early Japanese governance of Korea then proceeded along similar lines as early governance of Taiwan with one major exception. Anti-Japanese demonstrations in May 1919 in Korea, following similar protests in China, led to calls among Japanese intelligentsia in the home islands for more enlightened colonial government that would truly live up to the ideal of isshi-doujin. Ironically, the reforms were never applied to Korea, though slight modifications were made to the relationship between the Home Government and Taiwan's Government-General. Indeed, some historians have noted that the only change in Korea's government was purely cosmetic. For a decade and a half after 1919 the colony's military governors made public appearances in civilian attire rather than in customary uniform.⁶⁹

The basic outline of early Japanese colonialism in Korea remained similar to that on Taiwan, yet there were differences. In the realm of education, the authorities copied the Taiwan Governor General's toleration of native language schools as well as government's careful cultivation of good relations with Confucian scholarly elites. However, Korea went through a brief period of nationalism during the late Yi Dynasty with the beginning of the "education for the nation" movement. Here, the Dynasty encouraged the growth of county schools that included some topics relating to the reality of the wider world in its curriculum.⁷⁰ Nothing resembling the Korean movement of the late Yi period, as abortive as it may well had been, ever existed on Taiwan. This meant that Taiwan authorities' goals were relatively straightforward: undermine the private schools and increase enrollment to Japanese funded schools. In Korea, however, Japanese officials needed to achieve this overarching goal not only without goading the classically Chinese educated yangban class into resistance, but also while trying to undercut the country schools which were acute incubators of Korean nationalism and anti-Japanese feeling. The same approach that had been tried on Taiwan eventually ended the danger to Japanese mandated Korean education posed by the "education for the nation" movement. A strong national identity - a perhaps-natural outcome from six centuries of control by one dynasty over a single, ethnically homogenous people - could not, however, be so easily overcome. In a situation directly opposite to the one in Taiwan – where a Japanese education eventually became an accepted part of life for most islanders and was even accepted by traditional elite, Korea proved more difficult. Although *yangban* opposition to Japan may not have been singularly notable – perhaps a sign that Japan's early courting of this Korean elite did what it was calculated to do – other sources of Korean identity threw up roadblocks to Japanese efforts to extend and deepen their control. Christian missionaries, long active in Yi Dynasty Korea continued to be active after annexation although relations between them and the Japanese, initially pleasant if not cordial, declined. Japanese authorities were continually irritated at missionary accounts of Japanese actions that were not always according to the interpretation most welcomed by the Governor General. More to the point, mission schools competed with Japanese run "ordinary schools" for students among the mass of the Korean population, challenging the commonplace Meiji and Taisho era Japanese conceit that modernity could only be wrought in the colonies through exclusively Japanese leadership and education, Christian schools also competed with Japanese institutions and were among the first sources of Western scientific and political ideas in the peninsula.

The *kominka* movement, previously described mainly in the Taiwanese context, had summarily different effects, and evoked a customarily different reaction due to a number of reasons including historical Korean cultural cohesion and the memory of an equally cohesive indigenous precolonial political order.

The insistence of Korean Government General officials on a literal oath for recitation among Koreans bespeaks the lower expectation among colonial officials of Koreans' capacity for quick assimilation at the campaign's outset. The "national language" movement to supplant Korean with Japanese seems to have been more coercive than the corresponding effort in Taiwan. Responsibility for the existence of a much more coercive policy may not have lain with Japanese alone. Undoubtedly, authorities expected that any attempt to diminish the standing of Korean in favor of Japanese would undoubtedly be greatly resisted by the people - as indeed it was – thus, a more gentle, persuasive policy was doomed to certain failure and only sufficient force could guarantee compliance. Confidence in Taiwan's population for compliance by authorities there seemed to have been much greater, as implied by the absence of a loyalty oath, and a coercive campaign that was unnecessary on the island.⁷²

"Religious reform," the institution of State Shinto in Korea, fared about as well as in Taiwan although Korean unwillingness to adopt even perfunctory obeisance to Shinto was marked while

Omikami.⁷³ The prevalence of Christianity, particularly evangelical sects within Korea, made participation by most Korean Christians in Shinto rites or obsequiousness to the Emperor as earthly intercessor to the Shinto pantheon, tantamount to worship in a false religion. The "name changing" campaign, however, evinced the most widespread and dramatic accounts of Korean distress. The practical effect of the campaign followed the one in Taiwan - those having adopted Japanese names usually retained in their new name some form of reference to their indigenous name. Yet Taiwanese acceptance of new names was largely absent in Korea. The immediate Korean reaction was one of grief at the perceived loss of filial ties with ancestors upon their adoption of new names.⁷⁴

Conclusion

Altogether, Japanese colonizers advanced remarkably similar rationales in each of Japan's two biggest colonies. The early emphasis on association and a gradual merger of each colonial populace into the empire was replaced due to the vicissitudes of the changing international situation and Japan's place within it. Such changes disrupted the slow process of colonial maturation to the ideal of the metropole. The change was exemplified by the urgency inherent in the aims for quick cultural parity between Japan and the colonies and an increased need for colonial assistance in war, found in *kominka* pronouncements nearing the end of the Empire.

Specific changes in Japanese governance occurred in each colony, both as a result of each locale's pre-colonial history - which predisposed each colony for either relative docility or obstinacy toward Japanese rule - and the colonial authorities' reaction to it. Though certain policies carried out were virtually identical in intent, and even in name, their application was substantially different due to the colonial peoples' cultural and historical make-up, Japanese responses, and different concerns regarding each colony among political leaders in the home islands.

¹ Mark R. Peattie, "Introduction," in <u>The Japanese Colonial Empire</u>, *1895-1945*, eds. Ramon H. Myers, and Mark R. Peattie. (Princeton NJ: Princeton University Press). 1984, pp. 6-8

² Peattie, "Introduction," pp 8-10.

³ Peattie, "Introduction," pg 14.

⁴ Chen, I-Ten Edward. "Japanese Colonialism in Korea and Formosa: A Comparison of The Systems of Political Control," <u>Harvard Journal of Asian Studies</u> 30 (1970), pg 128.

There were eight Governor Generals of Korea, two were appointed twice. Besides the wholly military identity of Japan's Korea proconsuls, the office of Korea Governor General appears to have been reserved for military men of political as well as martial consequence. Chen notes that three of the six Governors appointed from 1919-1945 were past or future Prime Ministers. The first Governor, Terauchi Masatake, had been Minister of the

Army prior to his taking up office in Seoul as was future Governors Yamanashi Hanzo, in Korea from 1927-1929 and Ugaki Kazushige, in Korea from 1931-1936 and Minami Jiro, in Korea from 1936-1942.

Roy notes the first major mainland Chinese interest in Taiwan as beginning with the shipwrecking of Admiral Cheng Ho on the island during his voyages back to China from SE Asia. Official mainland government policy forbade Chinese emigration to the island after the Admiral's return to China. Punishment for flouting of the restriction was death.

⁷ Roy, <u>Taiwan: A Political History</u>, pp 15-17

Dutch rule was begun with the defeat of Spanish forces on Taiwan near modern day Tamsui in 1644. Dutch East Indies Company troops would be garrisoned at present day Tainan at the Casteel Zeelandia abutting the city's harbor.

Tensions were not solely between islanders and mainland officials or between Chinese and aborigines – tensions between Chinese migrants differentiated from one another by region of origin or identity as distinctive people existed as well. Fujianese from Fujian and Hakka refugees, most having fled China for Taiwan after the defeat in 1864 of the Hakka-led Taiping Rebellion, distrusted one another. However even Fujianese from rival areas – namely the cities of Zhangzhou and Quangzhou – were known to clash.

Though Qing officials saw fit to temporize before deciding to incorporate Taiwan as a full fledged province, French inroads on the island in 1885 forced the hand of those advocating the island's administrative inclusion.

Chen notes that Foreign Minister Mune Munemitsu was far more sanguine about the possibility of Western intervention in the event of Japan's capture of Peking. He admitted the possibility of such intervention but believed that public pressure from within Japan, bordering on pro-war hysteria, would make the government's attempt to awaken the public to the danger nigh impossible. Instead of diverting military efforts away from Peking however, Munemitsu argued that the Army continue its overland advance into mainland China. Western intervention would be dealt with one way or another if it actually materialized. In the final analysis Prime Minister Ito's fears were well grounded as the Triple Intervention - which divested Japan of its post war holding on the Liaotung Peninsula - bore out.

⁵ Chen, "Japanese Colonialism in Korea and Formosa: A Comparison of The Systems of Political Control," pg 156.

⁶ Roy, Denny. Taiwan: A Political History. Ithaca NY: Cornell UP, 2003, pp 12-15

⁸ Roy, <u>Taiwan: A Political History</u>, pg 17

⁹ Roy, <u>Taiwan: A Political History</u>, pp 18-19

¹⁰ Roy, <u>Taiwan: A Political History</u>, pg 21

¹¹ Philips, Steven E. <u>Between Assimilation and Independence: The Taiwanese Encounter Nationalist China, 1945-1950</u>. Stanford CA: Stanford UP, 2003, pg 5.

¹² Roy, <u>Taiwan: A Political History</u>, pp 29-30

¹³ Philips, Steven E. Between Assimilation and Independence, pg 4

¹⁴ Philips, Steven E. Between Assimilation and Independence, pg 5

¹⁵ Duus, Peter. The Abacus and the Sword: The Japanese Penetration of Korea, 1895-1910. Berkeley CA: University of California Press, 1995, pg 33, and Mark R. Peattie, "Introduction," in Myers et al, pp. 15-16

¹⁶ Chen, I-Ten Edward. "Japan's Decision to Annex Taiwan: A Study of Ito-Mutsu Diplomacy, 1894-95.," <u>The Journal of Asian Studies</u> 37, No.1 (Nov., 1977), pp 64-65

Inoue Tsuyoshi, one of Ito's advisors, is also credited with raising Taiwan's strategic importance to Japan's territorial defense. Inoue opined that; "Taiwan...can control maritime rights to the Yellow Sea, the North China Sea, and the Sea of Japan. It is the door to Japan's defense. If we lose this good opportunity, the island of Taiwan will be taken by other powerful countries within two or three years."

Lamley notes that resistance to the incoming Japanese was very fragmented with the most effective resistance given by Lin Shao Mao's and Liu Yung-fu's militias composed of local and mainland Chinese voluntary fighters. Liu and other members of his "Black Flag" militia attempted to assert an abortive "Taiwan Republic" based out of the former provincial capital of Tainan. By mid October 1895, four months since the initial Japanese landings on Taiwan at Keelung and Taipei, the Japanese commander and newly appointed military governor of Taiwan, Admiral Kabayama Sukenori, declared hostilities to have ended with Liu's defeat and Tainan's fall on October 21. Counter-insurgency operations by Japanese forces continued with the island on an effective war footing long after Kabayama's declaration however. According to estimates given close to 12,000 people, classified by colonial authorities as "bandit-rebels" were killed between 1898 and 1902, about twice as many inhabitants as those who died during the initial Japanese invasion in 1895. These civilian casualty figures are presented out of a total island population estimated at just under three million near the end of the nineteenth century.

¹⁷ Chen, "Japan's Decision to Annex Taiwan: A Study of Ito-Mutsu Diplomacy, 1894-95.," pp 65-66 and Roy, <u>Taiwan: A Political History</u>, pg 32.

¹⁸ Duus, <u>The Abacus and the Sword</u>, pp 29-30.

¹⁹ Lamley, Harry J. "Taiwan Under Japanese Rule, 1895-1945: The Vicissitudes of Colonialism," in Taiwan: A New History, ed. Murray Rubinstein. (Armonck N.Y: M.E. Sharpe). 1999, pg 207

²⁰ Roy, <u>Taiwan: A Political History</u>, pg 35

²¹ Takekoshi, Yosaburo. <u>Japanese Rule in Formosa</u>. Trans. George Braithwaite. New York: Longmans, Green, and Co, 1907, pg 94.

²² Roy, <u>Taiwan: A Political History</u>, pg 35.

²³ Tse-Han, Lai, Myers, Ramon H., and Wou, Wei. <u>A Tragic Beginning: The Taiwan Uprising of February 28, 1947</u>. Stanford CA: Stanford UP, 1991, pg 15 and Roy, <u>Taiwan: A Political History</u>, pg 34.

²⁴ Takekoshi, <u>Japanese Rule in Formosa</u>, pg 96.

²⁵ Mark R. Peattie, "Japanese Attitudes Toward Colonialism, 1895-1945," in *The Japanese Colonial Empire*, 1895-1945, eds. Ramon H. Myers, and Mark R. Peattie. (Princeton NJ: Princeton University Press). 1984, pp. 82-87. Goto's belief in the applicability of science to colonial administration was echoed by one of his biggest promoters in both Japan and the West, Diet member Takekoshi Yosaburo. Takekoshi insisted that "biological laws prevail in politics as well as in the human body.....We of the latter-day school of the science of government firmly believe that the government of a colony cannot go beyond biological laws...."

²⁶ Peattie, "Japanese Attitudes Toward Colonialism," pp 84-85.

²⁷ Takekoshi, <u>Japanese Rule in Formosa</u>, pp 21-22.

²⁸ Peattie, "Japanese Attitudes Toward Colonialism," pg 95.

²⁹ Peattie, "Japanese Attitudes Toward Colonialism," pg 94.

³⁰ Lamley, Harry, "Assimilation Efforts in Taiwan: The Fate of the 1914 Movement," in Monumenta Serica, Vol. XXIX (17-71), pp. 496-500.

³¹ Chen, Ching-Chih. The Japanese Adaptation of the Pao-Chia System in Taiwan, 1895-1945," in <u>The Journal of Asian Studies</u>, 34, No.2 (February., 1975), pp 391-394.

³² Chen, "The Japanese Adaptation of the Pao-Chia System in Taiwan," pp 395-396

³³ E. Patricia Tsurumi, "Colonial Education in Korea and Taiwan," in *The Japanese Colonial Empire*, *1895-1945*, eds. Ramon H. Myers, and Mark R. Peattie. (Princeton NJ: Princeton University Press). 1984, pp 283-284

³⁴ Tsurumi, "Colonial Education in Korea and Taiwan," pp 282-284

³⁵Tsurumi, "Colonial Education in Korea and Taiwan," pg 293.

³⁶ Roy, <u>Taiwan: A Political History</u>, pg 45

³⁷ Peattie, "Japanese Attitudes Toward Colonialism," pp 97-99 *Isshi-Doujin* began life as a phrase describing the ideal of impartial government toward all subjects in Chinese before the phrase's use in modern Japanese. The Chinese antecedent to the Japanese *isshi-doujin* was *i-shih t'ung-jen* meaning "to be equally merciful to all," or to "grant an impartial favor or kindness." The phrase was used by Chinese scholars and poets in the Tang Dynasty (618-907AD).

³⁸ Peattie, "Japanese Attitudes Toward Colonialism," pp 100-101 Peattie claims Mochiji's thoughts on assimilation foreshadowed later policy such as the Kominka movement by noting that Mochiji himself asserted that assimilation through cultural interactions between Japanese and their subject peoples would be integral to the integrity and enlargement of the Empire. Peattie quotes Mochiji as stating that "[Upon] the solution of this profound problem [of cultural integration], lies the fate and direction of the expanding Japanese empire."

³⁹ Chen, Edward I-te, "The Attempt to Integrate the Empire: Legal Perspectives," in <u>The Japanese Colonial Empire</u>, *1895-1945*, eds. Ramon H. Myers, and Mark R. Peattie. (Princeton NJ: Princeton University Press). 1984, pp 240-245

⁴⁰ Takekoshi, <u>Japanese Rule in Formosa</u>, pp 23-24.

⁴¹ Chen, I-Ten Edward. "Japanese Colonialism in Korea and Formosa: A Comparison of The Systems of Political Control," <u>Harvard Journal of Asian Studies</u> 30 (1970), pg 137

⁴² Chen, "Japanese Colonialism in Korea and Formosa," pp127-128, 131-135.

⁴³ Lamley, "Assimilation Efforts in Taiwan," pg 501.

⁴⁴ Peattie, "Japanese Attitudes Toward Colonialism," pp 102, 109-114

⁴⁵ Chou, Wan-yao. "The Kominka Movement in Taiwan and Korea: Comparisons and Interpretations," in *The Japanese Wartime Empire*, 1931-1945, eds. Peter Duus, Ramon H. Myers, and Mark R. Peattie. (Princeton NJ: Princeton University Press). 1996, pp 40-42

⁴⁶ Chen, "Japanese Colonialism in Korea and Formosa," pp 130-131

⁴⁷ Chou, "The Kominka Movement in Taiwan and Korea," pg 44.

⁴⁸ Chou, "The Kominka Movement in Taiwan and Korea," pp 42-43 The oath was officially promulgated on October 2nd, 1937 and called the "Oath as Subjects of the Imperial Nation." The oath for adults consisted of three statements all professing loyalty to the Empire as filial subjects. Oath takers vowed to "repay His Majesty as well as the country with loyalty and sincerity", to "love, trust, and help one another to strengthen our unity," and to "endure hardship, train ourselves, and cultivate strength so that we can exalt the imperial way."

⁴⁹ Chou, "The Kominka Movement in Taiwan and Korea," pg 45

⁵⁰ Chou, "The Kominka Movement in Taiwan and Korea," pp 45-46 and Roy, <u>Taiwan: A Political History</u>, pg 43.

⁵¹ Chou, "The Kominka Movement in Taiwan and Korea," pg 46. Admiral Hasegawa Kiyoshi replaced Admiral Kobayashi as Governor in late 1940 and ended the policy soon after he took up the post.

⁵² Chou, "The Kominka Movement in Taiwan and Korea," pp 50-51

⁵³ Chou, "The Kominka Movement in Taiwan and Korea," pp 44 and 51.

⁵⁴Ching, T.S, Becoming Japanese: Colonial Taiwan and the Politics of Identity Formation, pg 95. Ching notes that the Taiwan colonial government did attempt to undermine the use of Taiwanese dialects – principally the Min-Nan dialect spoken by the island's majority Fujianese population – through coercive means as well as compulsive strategies to encourage use of Japanese. In May 1937 the Government-General's Education Office promulgated a decree that "those who use the Taiwanese language are subject to fines." In Taichu province, midway down Taiwan's west coast, all civil servants were prohibited from speaking local dialects and those who did not practice speaking Japanese in villages near Taihoku (Taipei) were fined for "laziness." In the office of the port of Karenko (Hualien), those Taiwanese discovered speaking any language other than Japanese were fired on the spot.

⁵⁵ Chou, "The Kominka Movement in Taiwan and Korea," pp 55-59.

⁵⁶ Chou, "The Kominka Movement in Taiwan and Korea," pp 67-68

⁵⁷ Chou, "The Kominka Movement in Taiwan and Korea," pp 63-65

⁵⁸ Buzo, Adrian. The Making of Modern Korea. New York: Routledge, 2002.

⁵⁹ Duus, <u>The Abacus and the Sword</u>, pp 29-31

⁶⁰ Duus, <u>The Abacus and the Sword</u>, pp 38-43

⁶¹ Duus, <u>The Abacus and the Sword</u>, pg 33

⁶² Duus, <u>The Abacus and the Sword, pp</u> 51-60

⁶³ Duus, <u>The Abacus and the Sword</u>, pp 43-47

⁶⁴ Duus, <u>The Abacus and the Sword</u>, pg 53 Fukuzawa is quoted as writing to a friend of the arrival of the Korean delegation as "arrived to observe conditions in Japan, two of them are enrolled in our academy....When I think about myself twenty-odd years ago, I cannot help feeling sympathy and compassion for them....When I hear them talk, it is Japan of thirty years ago."

Marius B. Jansen, "Japanese Imperialism: Late Meiji Perspectives," in *The Japanese Colonial Empire*, 1895-1945, eds. Ramon H. Myers, and Mark R. Peattie. (Princeton NJ: Princeton University Press). 1984, pg 71.

⁶⁶ Harries, Meirion and Susie. Soldiers of the Sun: The Rise and Fall of the Imperial Japanese Army, New York: Random House, 1991, pg 53.

⁶⁷ Duus, <u>The Abacus and the Sword</u>, pp 69-79

⁶⁸ Duus, <u>The Abacus and the Sword</u>, pp 220-234 Korean dissatisfaction with the imposition of Japanese sponsored government policies implemented during the Protectorate, animosity toward Japan across the nation. Tax laws which fixed the population's annual tribute to Seoul was thought by many Koreans to accrue only to the eventual benefit of Japanese. Local Korean elites spearheaded this resentment as well as opposition to a land valuation

similar to that undertaken in early Meiji era Japan. In 1906 Min Chong-sik, a relative of the pro-Chinese Korean Queen Min, assassinated on the order of Japanese officials in 1897, took to fighting a rearguard guerilla war against Japanese forces. Disaffected and demobilized units of the former Korean Army rallied to the rebels the following year, though all insurgents were steadily hunted by Japanese troops. Several thousand strong by 1908, the rebel armies or Uibyong –"righteous armies" panicked some Japanese civilians. A Japanese settler reported to Resident General Ito in December 1907 that "ordinary people cannot live on doing their daily work. Some are fleeing with their families, some have been killed, some have lost their homes. Now there is cold and starvation. It is a calamitous situation. Japanese residents are all retreating from the interior."

⁶⁹ Chen, "Japanese Colonialism in Korea and Formosa," pg 128

⁷⁰ Tsurumi, "Colonial Education in Korea and Taiwan," pp 295-296

⁷¹ Tsurumi, "Colonial Education in Korea and Taiwan," pg 297

⁷² Chou, "The Kominka Movement in Taiwan and Korea," pg 43

⁷³ Chou, "The Kominka Movement in Taiwan and Korea," pp 45-46

⁷⁴ Kim, Richard. <u>Lost Names: Scenes from a Korean Boyhood</u>. University of California Press, Berkeley CA, 1998, pp 87-115

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Automated Test Pattern Generation for Quantum Circuits

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ABSTRACT

This work extends a general method used to test classical circuits to quantum circuits. Gate internal errors are address using a discrete fault model. Fault models to represent unwanted nearest neighbor entanglement as well as unwanted qubit rotation are presented. When witnessed, the faults we model are probabilistic, but there is a set of tests with the highest probability of detecting a discrete repetitive fault. A method of probabilistic set covering to identify the minimal set of tests is introduced. A large part of our work consisted of writing a software package that allows us to compare various fault models and test strategies for quantum networks.

Keywords: Automated quantum test set generation, quantum state tomography, quantum error modeling.

1. INTRODUCTION

Quantum information theory approaches computation by thinking of all physical phenomena as computations, with each measurable outcome of a computation as a system observable[1]. The past quarter century fostered an electronics revolution—with the most recent strides enabling the control of bi-state particles that can be used to represent bits of information[2]. The laws of quantum mechanics predict computational devices leading to speed increases over their classical counterparts[3]. Quantum system reliability is a very real problem[4]. Likewise, system verification has recently received quite a bit of attention[5]. Just as the EDA (Electronic Design and Automation) community began to dominate the testing of classical circuits around the 1960's[6], this paper begins to extend these classical test methods to quantum circuits. The reason it has taken so long to adapt classical testing methods to quantum circuits is because of the difference from classical test.

Currently experimental physicists have only begun to experience a need to research optimized testing methods due to the small qubit (quantum bit) count of current quantum circuits[7]. Much like in the early days of classical logic, experimentalists test using a process known as state tomography[8]—essentially brute force—where the number of tests is supper exponential in the number of qubits. In this work we consider quantum circuits that implement binary gates and oracles—we concern ourselves with the logical testing of quantum circuits. This means that we will inspect the logical data processed by the quantum network and compare this data with expected values allowing us to make a judgment on a circuit's logical functionality—after all we measure only binary information from a qubit even though its quantum modes of operation reside in the vastness of Hilbert Space.

The relatively slow rate of progress realizing quantum circuits causes some to consider our idea of fast testing a bit premature. On the other hand, we can say that in NMR it takes months to fine tune the sequence of pulses necessary to implement a simple universal gate to function properly[9], and much of this time is spent testing. Therefore, improvements over current testing methods would foster development towards a quantum information processing system.

Classically test set generation relies on a fault model, this means that you limit the errors to those that are most likely. In this work, we consider internal quantum gate faults such as unwanted qubit rotations and unwanted entanglement. In practice, the choice of the fault model will be determined by a particular quantum

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circuit technology, but our model is general enough to cover a wide range of fault types. Often faults in quantum circuits are constant in space and time[10], this could be thought of as a presence of an unwanted field. However to simplify our approach in this introductory work, we limit our discussion to discrete faults occurring in the timed operations forming a quantum circuit. Faults other than local decoherence have been studied recently. Kak[11] addressed the problems in initialization of quantum computers, Shenvi et al addressed the Grover search under the impact of noise[12], and Bettelli modelled the impact of non-ideal operations on decoherence[13].

We proceed now to Section 2 where we present the necessary background in quantum mechanics to read the paper. This is followed by Section 3 where the error models and fault table generation method is presented. In Section 3.1 our method to generate test plans based on a given quantum fault table is presented, this is followed by Section 3.2 where our set covering algorithm is formalized. Section 4 concludes the paper by a discussion of the validity of this approach based on the data generated by QuFault, our quantum test set generation software package. In this paper we often omit normalization factors and represent $|+\rangle$ as $|0\rangle + |1\rangle$ and $|-\rangle$ as $|0\rangle - |1\rangle$ for clarity.

2. BACKGROUND

In quantum computing the bi-state subatomic-particles used to store data are called qubits. Just like in classical computing, information is processed by gates, however in most quantum computing architectures a gate is an operator that acts on the state space of a system, an example of such an operator is an electromagnetic pulse in NMR[8]. This can become confusing to the electrical engineer who thinks of gates as those occupying space, with information represented by that of a signal acted on in the course of time. In quantum computing however, gates act on qubits that contain information and occupy space. A qubit takes continuous values in space with time, making information processing capabilities with qubits intriguing as one can place a single qubit in a superposition of classical states. Yet when a qubit is measured, its complex state is destroyed leaving the system in a single eigenstate, and returning an eigenvalue of an observable. The gates in quantum computing are represented as unitary operators, and the state of a quantum circuit is described as a unit vector in a Hilbert Space.

To define a qubit one must specify an orthonormal vector space to both describe the system, and give reference to measurement operations. The state of a single qubit is represented as a point on the sphere (for pure states) formed in a Hilbert space of 4 dimensions. We can make a measurement along our choice of the orthonormal x, y or z axis. The outcome of a measurement will be plus or minus one, the eigenvalues of an observable. The z axis is what is known as the computational basis, and is generally implied when communicating ideas about quantum computing, like when we describe the state of the following system: $|\Psi\rangle = \alpha |0\rangle + \beta |1\rangle$, where $|0\rangle = (1 \ 0)^T$ and $|1\rangle = (0 \ 1)^T$. The weights alpha and beta combined with the Eigenstates $|0\rangle$ and $|1\rangle$ form an orthonormal basis, where $\alpha\alpha^* + \beta\beta^* = 1$. The x axis (Also known as the plus minus basis) is used sometimes in quantum computing to describe qubits. Typically the plus minus basis is denoted as $|+\rangle$ and $|-\rangle$. One can express this new basis in terms of the computational basis as, $|+\rangle = \frac{|0\rangle + |1\rangle}{\sqrt{2}}$, and $|-\rangle = \frac{|0\rangle - |1\rangle}{\sqrt{2}}$. Even more generally we can represent a qubit with Equation 1.

$$|\Psi\rangle = cos(\theta) \cdot |0\rangle + e^{-\jmath\phi} sin(\theta) \cdot |1\rangle$$
 (1)

If we examine Equation 1 in more detail we will notice that a qubit has what is called both amplitude and phase - where the $e^{-j\phi}$ term represents the qubit phase. The amplitude corresponds to the probability of measuring the system to be found in a given eigenstate. In the computational basis we can not detect phase, and furthermore an operator acting on a qubit will rotate the phase based on the eigenvalues of the operator. However, phase can be detected from the plus minus basis, and we note that phase is imperative in quantum algorithms[8].

The operators given in Equations 9, 10 and 11, from a basis space for measurement, as well as gates that preform unitary evolution in quantum computing. When we substitute values of $\theta = 2\pi$ into Equations 9, 10 and $\phi = 2\pi$ into Equation 11 we obtain what is known as the Pauli matrices given in Equations 2, 3 and 4.

$$\sigma_x = \left(\begin{array}{cc} 0 & 1\\ 1 & 0 \end{array}\right) \tag{2}$$

$$\sigma_y = \begin{pmatrix} 0 & -j \\ j & 0 \end{pmatrix} \tag{3}$$

$$\sigma_z = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} \tag{4}$$

Observe, that the eigenvalues of each of the Pauli matrices are plus or minus one and that each eigenvector can represent an axis of a Hilbert Space used to describe a single qubit. The size of the Hilbert space used to represent the state of any quantum system expands dimensionally via the tensor product[14]. The state space of an n qubit quantum computational system corresponds to 2^n dimensions, and a given state vector in that space can be in 2^n different states at any given time, where a classical computational system can reside in only a single state. Linear combinations of the Pauli Matrices can be used to create other useful gates, such as the Hadamard gate whose unitary matrix is given in Equation 5.

$$H = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ 1 & -1 \end{pmatrix} \tag{5}$$

We now have the building blocks needed to represent simple quantum computations. To represent a quantum computation we must initialize a qubit into a certain state before we act on that qubit to process information. For example, typically we rotate the state of a qubit such that it will be "+1" in the computational basis before computation. In other words the state of our system is described as $|\Psi\rangle = |0\rangle$ and the inner product between the positive z axis and the state of our qubit is the unit value " + 1". After we initialize our qubit we can act on it with a Hardmard operation, such as:

$$H|\Psi\rangle = \frac{1}{\sqrt{2}} \cdot \begin{pmatrix} 1 & 1\\ 1 & -1 \end{pmatrix} \cdot |0\rangle = \frac{|0\rangle + |1\rangle}{\sqrt{2}} = |+\rangle \tag{6}$$

This operation mapped our system into what is known as a superposition of states, both possible eigenstates in time. We can now use projective measurement and project the state of our system onto the computational basis using the σ_z observable. We can calculate the expectation value of this observable as follows:

$$\langle + | \sigma_z | + \rangle = \frac{1}{\sqrt{2}} \cdot \begin{pmatrix} 1 & 1 \end{pmatrix} \cdot \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} \cdot \frac{1}{\sqrt{2}} \cdot \begin{pmatrix} 1 \\ 1 \end{pmatrix} = 0$$
 (7)

This means that if we measure our system from the computational basis infinitely many times we will get value "+1" half of the time and value "-1" the other half of the time and the average is 0. If we instead made a measurement of the expectation value of the σ_x observable we would have obtained the following,

$$\langle + | \sigma_x | + \rangle = \frac{1}{\sqrt{2}} \cdot \begin{pmatrix} 1 & 1 \end{pmatrix} \cdot \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix} \cdot \frac{1}{\sqrt{2}} \cdot \begin{pmatrix} 1 \\ 1 \end{pmatrix} = +1$$
 (8)

The measurement outcome is what is referred to as 'sharp' in σ_x since it will always yield value +1.

This section concludes the provided background information on quantum computation. It is designed as an overview but we refer the reader to [1], as well as [14] and [8] for more depth of subject coverage.

3. MODELLING ERRORS

Traditionally the Test Generation Problem is thought of as the generation of a sequence of tests (test set), that when applied to a circuit and compared with the circuit's output, will determine that the circuit is correct or will determine that it contains one or more faults[15]. In other words, testing is the checking of functionality, and running the ideal test set amounts to sufficient system verification with the smallest possible number of tests[6].

For simplification, in this paper we assume what is called in binary testing the single fault model[6], where only one fault is allowed in the entire circuit. In classical test you first determine what output the circuit should generate under certain conditions and then find out what the circuit generate if certain errors were present, such as output a $|001\rangle$ instead of a $|101\rangle$ ten percent of the time with input vector $|000\rangle$. In this work we consider 'what if' cases, where a model of the error is placed into a circuit and the new erroneous output is calculated and stored—for later comparison. We then use software to find the smallest set of tests that can detect these errors to a certain level of validation, referred to as ϵ . For the quantum case this table contains fractions that represent probabilities of different outcomes, as will be seen in section 3.1. To that order, we must distinguish between a probabilistic fault and a deterministic fault that is observed probabilistically. When we wrote this paper we coined these faults "quantum faults" in order to better distinguish them from their classical counterparts.

The Hamiltonian of the spin system that models Ising type interactions is given by, $\hat{H} = \sum_{i,\alpha} \alpha_{i\alpha} \sigma_{i\alpha} + \sum_{i,j} J_{ij} \sigma_{i\alpha} \sigma_{j\alpha}$. The spin Hamiltonian governs the ideal operation of a quantum circuit. It contains a term for individual bitwise operations, $R_{i,\alpha}(\theta) = e^{-j\frac{\phi}{2}\sigma_{i\alpha}}$ and an interaction (Ising term) $J_{ij}(\phi) = e^{-j\frac{\phi}{2}\sigma_{i\alpha}\sigma_{j\alpha}}$ to allow entanglement between qubits. Similar forms of this equation are relevant for any quantum computer. For our purposes, in the time dilation of pulses governed by the Hamiltonian, we assume an additional term representing a small error. The resulting impact in the presence of this error manifests its self in the form of changing the probability amplitudes of the possible outcomes, thus there is an altered chance for a particular outcome in measurement. A fault present in the state vector representing the system takes one of two forms, the first being the observation or (measurement/detection), and the second being the lack of observation.

Another difficulty detecting errors in quantum circuits is due to an error in the phase of the qubit. In the computational basis we can not detect phase because the eigenvectors of phase errors are the eigenvectors of the computational basis. The eigenvalues of a fault impacting the phase of a qubit will rotate the phase based on the eigenvalues of the fault. The interesting fault model of gate removal originates from Hayes et al who applied it to remove entire gates such as Toffoli gates in reversible circuits[16]. We believe however that this model is more adequate to single pulses and not gates composed of many pulses. Thus, a permutation circuit can become non-permutating as the result of a fault. The fault model presented here assumes that the machine is firing pulses, and that these could contain errors themselves, or another unwanted interaction changes the state of a qubit. The impact these faults have on the state of a qubit must be below a bound that is acceptable if the machine is going to function as expected. For example, a short or long pulse or a refocusing error in NMR can result in unwanted qubit rotations. This fault can be modelled in the simplest terms with a single qubit rotation operator about the x, y and z axis. If we consider the circuit shown in Figure 1 as a sequence of stages with each

stage defined as a gate that does not commute with both nearest neighbors, then the circuit shown in Figure 1 has 5 stages. We can assume certain faults between any of the stages or internal to the stages themselves in the circuit, in Figure 1 the locations of possible faults are represented by placing an "×" on the wire.

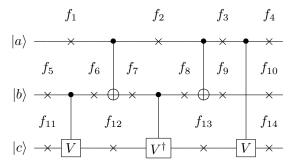


Figure 1. Toffoli gate made with smaller gates, the next level below this is machine dependent pulses. For a better explanation of this gate we refer the reader to [8].

We model the faults impacting the gate shown in Figure 1 by replacing each " \times " with a fault model represented by a matrix. The circuits transfer matrix is then recalculated and stored for later comparison. We calculate the probability outcomes for all inputs of a good circuit based on the unitary transfer matrix of a circuit, we then store this in the fault table. For each fault model in our library and for each " \times " in the circuit, we insert the matrix representing the fault in place of the " \times " and recalculate the transfer matrix of the circuit. We then store the difference in the probabilities of the correct circuit response for a given input and the altered circuit response under a given fault. We find the input test set that reveals these faults with the highest probability using the probabilistic set covering method from Section 3.1. This method is general enough to work with many fault models. Quantum error correcting codes are typically designed to correct from insertions of the gates given in Equations 9, 10 and 11. This fault model has been used by [12] as well as several other papers.

$$R_x(\theta) = \begin{pmatrix} \cos(\frac{\theta}{2}) & -\jmath \cdot \sin(\frac{\theta}{2}) \\ -\jmath \cdot \sin(\frac{\theta}{2}) & \cos(\frac{\theta}{2}) \end{pmatrix}$$
(9)

$$R_y(\theta) = \begin{pmatrix} \cos(\frac{\theta}{2}) & -\sin(\frac{\theta}{2}) \\ \sin(\frac{\theta}{2}) & \cos(\frac{\theta}{2}) \end{pmatrix}$$
 (10)

$$R_z(\phi) = \begin{pmatrix} e^{-j\frac{\phi}{2}} & 0\\ 0 & e^{j\frac{\phi}{2}} \end{pmatrix} \tag{11}$$

We can also use the tensor product to expand any number of these single bit operators to show a simple case where a fault spreads out and impacts other bits in the circuit. The table shown in Figure 2 was generated using the fault models given in Equations 9, 10 and 11. Repeating rows and columns were grouped for clarity, and $|+\rangle = |0\rangle + |1\rangle$ and $|-\rangle = |0\rangle - |1\rangle$. Each entry in the table corresponds to the probability of detecting a given fault represented by Column label f_n . Equations 9, 10, and 11 correspond to single bit rotations. The angle of this rotation is given as θ in Equations 9 and 10 and ϕ in Equation 11. So if we we can represent the margin of error as some ε , we observe that $\frac{|\theta|}{4\pi} = \frac{\varepsilon}{100}$, and solving for θ gives us, $\theta = \frac{\pm \varepsilon \pi}{25}$. If ε is substituted into Equations 9, 10 or 11 than it can be thought of as a margin or percentage of error. For the Toffoli gate shown in Figure 1, we set ε to be 25, and then we use our software package QuFault to generate the fault table from Figure 2.

Input Test	f_a	f_b	f_c	f_d	f_e	f_f	f_g	f_h	f_i	f_j	f_k
$ 000\rangle$, $ 001\rangle$	0.2	0.2	0.2	0.2	0	0.2	0.2	0.2	0	0	0
010 angle, 110 angle	0.2	0.2	0.2	0.2	0	0.2	0	0	0	0.2	0.2
$ 100\rangle, 101\rangle$	0.2	0.2	0.2	0.2	0	0.2	0.2	0	0	0	0.2
110 angle, $ 111 angle$	0.2	0.2	0.2	0.2	0	0.2	0	0.2	0	0.2	0
$ +++\rangle, +-+\rangle, -++\rangle, +\rangle$	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
$ ++-\rangle, +\rangle, -+-\rangle, \rangle$	0	0.8	0.8	0	0	0.2	0.2	0.2	0.2	0.2	0.2

Figure 2. Fault table generate using the fault models given in Equations 9, 10 and 11 for the Toffoli gate from Figure 1. Each entry in the fault table was created with the following equation: $E_{t_t f_n} = |\langle \sum_{i} GC | \Psi_i \rangle \langle \Psi_i | GC^{\dagger} - BC_n | \Psi_i \rangle \langle \Psi_i | BC_n^{\dagger} \rangle|$, GC is the operator corresponding to a faultless circuit, BC is the operator corresponding the the impact of a given fault. Each entry in the fault table is the magnitude of the difference between GC and BC.

To detect phase errors we need to use inputs of type: $|+\rangle = |0\rangle + |1\rangle$ and $|-\rangle = |0\rangle - |1\rangle$. One of the more interesting fault models that we used in this study represents unwanted amounts of entanglement. This fault model given in Figure 3 can model both the addition of unwanted entanglement and the removal of wanted entanglement. The amount of entanglement (the tangle τ) can be determined and adjusted using the Haar measure. the Haar measure is a well known metric used to calculate entanglement discussed in any advanced text on quantum mechanics. In Figure 4 we present a fault table generated by QuFault using unwanted entanglement as the fault model, in this case the Haar measure was set to $\tau = 1$, or maximum tangle.

$$\begin{pmatrix}
j \cdot e^{(j\phi)}\cos(\frac{\theta}{2}) & 0 & -j \cdot e^{(j\phi)}\sin(\frac{\theta}{2}) & 0 \\
0 & j \cdot e^{(j\phi)}\cos(\frac{\theta}{2}) & 0 & -j \cdot e^{(j\phi)}\sin(\frac{\theta}{2}) \\
j \cdot e^{(-j\phi)}\sin(\frac{\theta}{2})\cos(\theta) & e^{(-j\phi)}\sin(\frac{\theta}{2}) \cdot \sin(\frac{\theta}{2}) & j \cdot e^{(j\phi)}\cos(\frac{\theta}{2}) \cdot \cos(\theta) & e^{(j\phi)}\cos(\frac{\theta}{2})\sin(\theta) \\
e^{(-j\phi)}\sin(\frac{\theta}{2}) \cdot \sin(\frac{\theta}{2}) & j \cdot e^{(-j\phi)}\sin(\frac{\theta}{2})\cos(\theta) & e^{(j\phi)}\cos(\frac{\theta}{2})\sin(\theta) & j \cdot e^{(j\phi)}\cos(\theta) \cdot \cos(\frac{\theta}{2})
\end{pmatrix} (12)$$

Figure 3. The fault model used to represent the unwanted interaction of two qubits. We can vary the amount of entanglement over the range of the Haar Measure, 0 tangle means no entanglement and 1 means maximum tangle.

Input Test	f_1	f_2	f_3	f_4	f_5	f_6
$ 000\rangle, 001\rangle$	0.5	0.5	0.5	0.5	0.5	0.5
$ 010\rangle$, $ 110\rangle$	0.5	0.5	1	1	1	1
$ 100\rangle, 101\rangle$	1	1	0.5	0.5	1	1
$ 110\rangle, 111\rangle$	1	1	1	1	0.5	0.5

Figure 4. A fault table created with the Toffoli gate from Figure 1 contains internal errors resulting in unwanted entanglement. A representation of the fault model is given in Figure 3. Here the values of $\theta = \pi/2$ and $\phi = \pi$ making Figure 3 become the well known operator used to create Bell states.

3.1. Quantized Set covering

Because of the fractions that occur in quantum fault Tables 2 and 4, it is clear that traditional set covering will not work. In order to detect the greatest number of faults with each test, we must introduce a new kind of set covering.

We represent by a_n an entry in the quantum fault table, it represents the probability that given row (test) covers given column (fault), $0 \le a_n \le 1$. It is clear that the traditional set covering problem of a fault table is a special case where $\forall a_n, a_n \in \{0,1\}^n$. The quantum set covering problem is now formulated differing from the classical case with the addition of positive fractional entries, arising from the nature of quantum measurement. This modification in problem formulation makes the concept of full coverage in general not achievable for testing quantum circuits, unless we specify a bound ϵ used as an accuracy cut off. Given the Table from Figure 5, for every selected set of rows one can calculate the probability of detecting fault f_a . Assume that rows T_a , T_{a+1} and T_{a+2} have been selected as a (quasi)-solution to the probabilistic set covering problem being a sub-problem of quantum set covering. Then the probability of detecting fault f_a is $P(f_a) = P(a_1) + (1 - P(a_1)) \cdot P(b_1) + (1 - (1 - P(a_1)) \cdot (1 - P(b_1)) \cdot P(c_1)$. If the probability of detecting fault f_a is above a certain "accuracy level" for each column, then the set of tests is a solution. If not, one can select other tests or repeat some tests T_j k times to increase the probability until we reach the desired assurance. Assume that in column f_r only test T_1 has entry higher than 0, and that this value is 3/4. Observe that by repeating this test three times we get the probability $P(f_r)$ of detecting fault f_r defined by $P(f_r) = \frac{3}{4} + \frac{1}{4} \cdot \frac{3}{4} + \frac{1}{4} \cdot \frac{3}{4} \cdot \frac{3}{4} = \frac{3}{4} + \frac{15}{64}$. We increased thus the fault detection probability by 15/64 by repeating the test three times. The techniques presented above are used in quantum set covering. In many cases the quantum fault table has a high percent of columns with "1's" thus can be highly reduced by using classical set covering approaches based on dominance and equivalence [6].

٠	f_a	f_{a+1}	f_{a+2}		f_n
\hat{T}_a	$P(a_1)$	$P(a_2)$	$P(a_3)$		$P(a_n)$
\hat{T}_{a+1}	$P(b_1)$	$P(b_2)$	$P(b_3)$		$P(b_n)$
\hat{T}_{a+2}	$P(c_1)$	$P(c_2)$	$P(c_3)$		$P(c_n)$
:		:		٠	•
\hat{T}_n	$P(n_1)$	$P(n_2)$	$P(n_3)$		$P(n_n)$

Figure 5. Arbitrary Fault Table with Columns as faults and Rows as tests and entries representing the probability of a given test detecting a given fault.

3.2. Quantum set covering formulation

The Quantum Set Covering Problem is formulated as follows. Given is a covering table in which rows correspond to tests and columns to faults. The value p in the entry on the intersection of the row R and column C means that test R detects fault C with probability p. Value 1 in the entry on the intersection of row R and column C means probability 1 or that R is a deterministic test for C.

Rule 1. The entries of a quantum fault table are governed by a constrained covering problem with fractional entries. The entries relate to each other with the inclusion/exclusion principle and in discrete form are governed by the following Equation: $c(n) = \sum_{n=1}^{N} (1 - c(n-1)) \cdot a_n$.

Definition 1. Two tests (rows) R_i and R_j of a Quantum Fault Table are equivalent if they are identical vectors of numbers.

Definition 2. In a Quantum Fault Table test T_1 dominates test T_2 if **every** entry of test T_2 is a smaller number than the corresponding entry in the same column of test T_1 .

Dominated rows can be removed. In a group of equivalent rows, all but one can be removed. The algorithm below takes into account the "row equivalence" and "row domination" defined as Definition 1 and Definition 2 above, differing

from standard set covering algorithms. The classical set covering algorithm is a special case of quantum set covering, thus the Definitions 1 and 2 still hold for standard set covering, but not vice versa.

Definition 3. Assurance of column C_j with respect to set RR of rows is the sum of products of probabilities $c_{ij}(n)$ taken for all rows R_j from RR (as illustrated in 3.1 for $P(f_a)$ for rows T_a , T_{a+1} and T_{a+2} .) The "achieved assurance" of a column is the assurance for the set R of rows selected to the solution. The total assurance is the sum of achieved column assurances calculated for all columns and for the set of selected rows from the solution (including the rows selected at stages 1-3 of the algorithm below). Our heuristic greedy algorithm to solve the Quantum Set Covering Problem applied to the original Fault Table (Table S1) is as follows.

Quantum Set Covering Algorithm: Start from a given Quantum Fault Table S1.

- 1: Remove all dominated rows and select one row in each group of equivalent rows. Create Table S2.
- 2: Find a solution SOL1 (using any known set covering algorithm) to the subset of the table composed of all columns that have at least one "1" in them and their respective rows. Remove from Table S2 the rows from SOL1 and columns that are covered in SOL1. Remove dominated rows and select one row in each group of equivalent rows. Create Table S3.
- 3: Assume given accuracy acc (0,1). It can be different for each column C_m , denoted by column accuracy accm.
- 4: Create a vector of 0's the column length equal to S3, denoted this vector COL.

Process of Table Reduction:

- I. Define x as the number of entries in each row in S2.
- II. Calculate the inner product between COL and S2, $\sum_{x} \sqrt{COL_x \cdot S2_x}$.
- II. Select the row in S2 as a test, where the inner product between COL and S2 is maximum.
- III. Recalculate the entries of COL using Rule 1.
- IV. For each of the x entries in COL: if COL_x remove entry x from COL and S3.
- **V.** Repeat Process while x > 0.
- VI. Determine if the classical solution was dominated in the other selected tests.

The condition of satisfying accuracy acc_j for each column is a good termination condition because it is satisfiable (from problem formulation there always exist some subset of rows that satisfies this condition). In addition, the search uses the cost function which is the maximal total assurance, based on the amount of information gained by a potential test. The total assurance is calculated for the set of selected rows from the solution (including the rows selected at stages 1-3). Whenever a new value of the total assurance is found, if it is larger than the previously stored value, the corresponding solution is retained together with its total assurance. This way, when the search is completed, the last solution has the maximum value of the total assurance among all solutions that satisfy the termination condition of all "column accuracies" acc_j . The final solution is the union of SOL1 and SOL2. In[19] the notion of probabilistic set-covering is introduced as the generation of a random binary vector and the covering constraint has to be satisfied with some prescribed probability. Although there is certain similarity, our "quantum set covering problem" is quite different. Some ideas of[19] can be however used to create other algorithms for our problem.

4. CONCLUSIONS, COMPARISONS AND FUTURE WORK

We addressed the problem of generating test patterns for quantum circuits. We presented an algorithm to minimize the number of tests for quantum circuits based on an extension of the classical set covering algorithm. The presented method represents a possible solution to the problem of quantum test set generation. The weakness of the method lies in validation of the fault model. Although repetitive faults seem very possible in a quantum information processing system, faults may well be constant in time and space. More generalized fault models specific to quantum computing technology must be addressed by the Quantum EDA community, QEDA. This will be the direction of the authors future research. A somewhat obvious fact we noted in this work is that short fat channels are easier to test than long skinny ones. We noticed also that when taking a cross section of 4 bits and generating random stages, the number of tests to verify the network grows as a log with the number of stages.

Circuit	$\epsilon = 50$	$\epsilon = 25$	$\epsilon = 15$
Peres	3	9	22
Toffoli	3	9	21
Miller	4	10	23
Fredkin	3	9	21

Figure 6. Comparison on the number of tests needed for some common circuits.

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Cobb, Carrie

Not Quite Formal: Theorizing the Informal Labor Market Experiences of

"Documented" Immigrant Workers

by Carrie Cobb

Faculty Mentor: Leopoldo Rodreiguez

Scholarly research on labor markets and immigration is extensive, yet narrowly conceived.

Labor economists have focused on the examination of the effect of immigration on the labor market

for native workers (see Briggs (2003) and Borjas, Freeman and Katz (1996)). However, the labor

market experiences of undocumented immigrant workers, the workings of informal labor markets,

particularly in urban areas, and consequences for informal workers remain virtually unexplored.

To better understand the interactions between work and worker, this study focuses on the

structure of informal labor markets for immigrant workers. This analysis is based on a series of

qualitative interviews of undocumented restaurant workers in Portland, OR. This paper begins by

discussing the current understanding of informality in labor markets in industrialized cities.

Theoretical limitations of the common perception of informality are addressed and proposals

presented for increased theoretical specificity, which generates several working hypotheses as to the

dynamics of informal urban labor markets. These hypotheses are analyzed using case-study

methodology examining the restaurant industry in Portland, OR and Mexican immigration to

Oregon based on a series of interviews. The paper concludes with findings and suggestions for

future research.

Understandings of Informal Labor Markets

Informality is a widely used, but little theorized concept in the scholarly literature. In

exploring informality in advanced economies, researchers have often focused on attempting to

estimate the size of the informal economy. While valuable to understand the breadth of informal

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work, Enrico Marcelli (2004, p. 3) notes this concentration causes most research to overlook questions on the "character, sources and consequences of informal employment."

The few researchers grappling with the complexity of describing and analyzing the informal labor market face the difficulty of defining what the "informal economy" is, exactly. Colin C Williams and Jan Windebank (1998) represent one train of thought which defines informality narrowly, as "the paid production and sales of goods and services that are unregistered by, or hidden from the state." Other researchers, such as David Simcox (1997) set forth a broader understanding of informality as any type of transaction in which legal regulations are violated.

The different understandings of informality come from the very broadness of the activities that occur outside of the traditional formal economy. Some of these activities are illicit—most are not. Across the globe people inhabit radically different environments that, as Alejandro Portes and Manuel Castells (1989) point out, share certain characteristics in organization. Therefore, Castells and Portes show that informality cannot be too rigidly defined—street vendors scraping by and moonlighting professionals both live within the informal economy. It is this economic activity, they conclude, that is linked by one thing: "it is unregulated by the institutions of society, in a legal and social environment in which similar activities are regulated" (1989).

These definitions have subtle differences that make the classification of work by undocumented immigrants difficult. Their labor is registered by the state, and it is, at least to some extent, regulated. However, the very act of working for undocumented immigrants is a violation of labor laws, and is therefore distinct from formal employment. Because of this, some researchers, such as David Simcox (1997) and Enrico Marcelli (2004), categorize unauthorized immigrants in the informal economy. Simcox notes that the US Department of Labor's definition of "informality" includes any institution that escapes or circumvents rules, regulations, rights and enforcement

penalties. He concludes that the violation of labor laws intrinsic in employing unauthorized workers places the worker within the informal economy.

Marcelli (2004, p. 4) measures occupations' informality in California by an estimation of the percentage of unauthorized Mexican immigrants working within the industry. In this classification, "occupations with at least twice the proportion of unauthorized immigrants than average are considered to be niches of lower-wage informal employment." Marcelli notes that unauthorized Mexican workers frequently work in conditions where labor laws are violated, a claim supported by Simcox. Simcox reports that the 'percentage of illegal aliens claiming to have been denied legally required wages and hours was four and a half times the rate of such complaints for the U.S. workforce as a whole" (1997, 263).

While the common understanding of informality includes all unauthorized workers, in practice research on informality tends to focus on workers that are not only working illegally, but are also untaxed, unregulated and completely hidden by that state. Most empirical research on the characteristics of the informal labor markets in the U.S. has concentrated on highly informal occupations such as domestic work (Hondagneu-Sotelo, Hagan, and Rosales); street vending (Weber); construction (Lopez-Garza) and day labor (Valenzuela). Researchers interested in these labor markets have focused their studies on cities with high proportions of immigrants, such as Miami (Stepick), New York (Sassen-Koob), Houston (Hagan) and Los Angeles (Valenzuela, Lopez Garza, Weber, and Rosales).

Hypotheses:

The understanding of informal labor markets does little to illuminate the complexities of the labor market that undocumented immigrants face. Undocumented immigrant labor is not homogeneous, and variations in formality within the informal labor markets affect workers' employment strategies and outcomes. Furthermore, descriptors such as informal become less

descriptive when used to try to convey the complexity of the ways in which documentation, labor laws, and employment arrangements interact. The difficulty in defining informality rests in the breadth of arrangements included.

Undocumented workers have diverse labor experiences, yet with overlapping characteristics. Informality is not experienced as clearly differentiated from formal labor, but rather as a spectrum of experiences ranging from the most informal types of labor to work better characterized as semi-formal.

Therefore, I propose the use of a category called semi-formal labor that includes the labor market arrangements at the formal end of the informal spectrum illustrated in Figure 1 below. Key distinctions include the use of false work permission and taxed labor. It appears that access to false papers creates distinct outcomes for semi-formal workers not captured by the current division between informal and formal work.

Figure 1: Spectrum of Formality in the Labor Market

A	В	С	D	E
Formal	Semi-formal	Semi-informal	Informal	Informal
>Steady	S teady	S teady	> Unsteady	> Unsteady
employment	employment	employment	employment	employment
Taxes deducted	Taxes deducted	Some taxes	No taxes	No taxes
> Legal	> False	deducted	deducted	deducted
documentation	documentation	> False	> False	≻No
>Workplace that	>Workplace that	documentation	documentation	documentation
respects all labor	respects most	>Workplace that	>Frequent abuse	>Frequent abuse
laws	labor laws	respects some	of labor laws	of basic labor
		labor laws		laws such as
				workmen's
				compensation
				and payment

Semi-formal workers have distinct work experiences and hence different concerns than other informal workers. Therefore, they often will utilize different employment strategies. These

strategies could have possible long-term impacts that constrain their future options, and hence deserve examination. In exploring the labor issues that arise for semi-formal workers, three hypotheses emerge:

- 1.) Semi-formal labor is characterized by uncodified (not based on a set of laws) yet often mutually beneficial employer/employee relations
- 2.) Networks are crucial in facilitating semi-formal labor relationships through access to the employment, documentation and information necessary for unauthorized workers.
- 3.) Semi-formal workers pay taxes, yet generally have limited understanding of their tax obligations and rights.

Methodology:

These hypotheses arose from structured conversations with semi-formal restaurant workers in Portland, OR. The conversations were the heart of a case study of undocumented, Mexican migrant workers employed in restaurants in Portland, Oregon during the summer of 2004. I interviewed 12 people, eight men and four women. Interviewees were located in two ways, (1) as a snowball sample that started with an acquaintance from seven years of employment in a Portland restaurant, and (2) from respondents to requests posted in a neighborhood Mexican store. All interviews were in Spanish, in person, and lasted for an average of one hour, for which interviewees were paid \$20.

Questions were based on a questionnaire, but to maintain a natural environment questions were not always asked in order. All questions were open-ended, and many follow up questions were asked. The purpose of the interviews was not to generate systematic data for quantitative analysis, but rather to deepen the interviewers' understanding of semi-formal labor markets.

The Restaurant Industry in Portland, OR

The restaurant industry offers a large number of low-skill, low-wage jobs to the residents of the city of Portland. Restaurant employment is characterized by irregular hours, few benefits, and little job security. The work is physically demanding—restaurant staff experience extended periods of stress, high temperatures, heavy lifting, hours on their feet and repetitive movements over the course of the workday.

The sector is broken down into two kinds of restaurants—counter service and full service. Counter service covers all establishments where customers order food at a counter, either for take out or to eat inside. This category includes franchises of national fast food establishments, and their local equivalents. Full service restaurants are characterized by table service and a strict separation between kitchen staff and wait-staff.

Fast food employment includes managers, cashiers, and cooks, though workers usually are trained in multiple positions within the restaurant. Full service restaurant jobs can be classified as management, the "front of the house"—reception, waiters and bartenders, and the "back of the house"—cooks and dishwashers. Front of the house jobs include hosting, bussing tables, serving, and running food. Back of the house jobs involve dishwashing, food preparation, pantry cook, line cooks, and in more expensive establishments a chef and *sous* chef. Most often income is substantially higher in front of the house positions.

Full Service restaurants tend to have two distinct job ladders—a "back of the house" job ladder, and a "front of the house" job ladder. There is virtually no horizontal mobility between the two ladders, except in very small establishments where employees are cross-trained in various aspects of the restaurant. Unauthorized Mexican workers usually enter back of the house positions due to limited English proficiency and limited restaurant experience. Thomas Bailey (1985) found that in New York City, immigrants worked in kitchen jobs, while the front of the house was dominated by white, adult native-born and European men.

Figure 2: Restaurant Job Ladders

BACK OF HOUSE	FRONT OF HOUSE
Kitchen Manager/ Chef	Floor Management
<u> </u>	↑
Sous Chef	Bartender
\uparrow	↑
Line Cook	Servers
↑	↑
Prep Cook	Bussers/Food Runners
↑	↑
Dishwasher	Host

Restaurant work is a classic example of secondary sector employment (see Reich et al 1973). In addition to limited mobility, restaurant wages tend to be low, particularly in the back of the house. Van Giezen (1994) finds the wages to be particularly low in fast food jobs—his study concludes that the wages of fast food workers are tied to the minimum wage and wage increases occur only when the minimum wage is raised. Furthermore, fast food and restaurant jobs have few benefits, such as health care, retirement, vacation and sick pay. Tenure in a job has little impact on pay or benefits.

Table One: Average restaurant employee wages in 2003

AREA	EMPLOYMENT	PAYROLL	AVERAGE PAY
Portland PMSA,	54, 723	\$748,078,394.00	\$13,670.00
Oregon Portion			
Oregon	110,077	\$1,396,286,310.00	\$12, 685.00

Source: Oregon Employment Department, Oregon Labor Market Information System "Industry Report: NAICS 722- Food Services and drinking places" 2003

Many immigrants find work in restaurants. John F. Love (1986) estimates that the first job for 1 in 15 immigrant workers is at one fast food chain—McDonald's. The Pew Hispanic Center

2004-2005 survey of Mexican immigrants applying for the *matricula consular*¹ found a significant percentage of workers in hospitality (hotel, restaurant and bars). In New York, 26 percent of workers worked in hospitality, in Chicago 17 percent, and in Los Angeles 13 percent (Suro 2005).

The accessibility of restaurant work to immigrant labor can be partly explained by a large number of entry level positions that do not require English fluency. Furthermore, the employment is relatively steady, and the pay typical of urban service sector employment. Restaurant jobs are comparable with employment in hotel maintenance, janitorial staff, and warehouses as semi-formal labor with low pay, little opportunity for advancement and a high number of immigrant workers.

Table 2 shows the number of workers of Mexican descent in "Food Preparation and Serving Related Occupations" in the Portland urban area in 2000. People of Mexican descent were only 6% of the population, yet comprised 14% of the food preparation workforce.

Table 2: Employment in "Food Preparation and Serving Related Occupations" in Portland, OR.

	Male	female	Total
Total Number of Workers in			
"Food Preparation and Serving	17, 773	21, 740	39, 513
Related Occupations" in			
Portland			
Number Mexican	3, 579	1,948	5, 527
Percentage Mexican of total	9.05%	4.93%	13.98%
number of food preparation			
workers			
Percentage Mexican of total	_	_	5.8%
population			

Source: Author's calculation based on US Census 2000, Summary File 3

Immigration to Portland, OR

1

¹ The *matricula consular* is an identity card issued by the Mexican government. The card has a photograph and the holders U.S. address. The *matricula* is accepted as identification to establish local address, and in 2003 the U.S. Treasury ruled to allow the card to be used to open bank accounts. The *matricula* does not confer the legal right to reside or work in the United States (Suro 2005)

Mexican immigration to Portland has dramatically increased since the early 1990s. The 2000 Census showed a significant upsurge in Mexican people living in Portland, OR.

Table 3: Population of Portland, OR

	1990	2000	percent increase
Total Population "All"	1, 172, 158	1, 583, 138	135%
of Portland			
Total Population	25, 787	92, 021	356.85%
"Mexican" in Portland			

Source: Author's calculations based on US Census 2000, Summary File 3

A large portion of the foreign-born population in Oregon is estimated to be undocumented. Jeffrey S. Passell (2005) estimates, based on 2000 Census data, that 30-39 percent of Oregon's foreign-born population is undocumented.

Preliminary Findings

1.) Semi-formal labor is characterized by uncodified yet often mutually beneficial employer/employee relations.

Many Mexican immigrants arrive in the United States planning to return home in a few years. Douglas S Massey explains that as temporary workers, migrants are often concerned with a financial goal—target earning—but over time this goal changes as migrants settle into the receiving community (Massey et. al. 2002). The initial mindset of workers may affect the way migrants approach employment. Michael J Piore (1979) argues that new immigrants do not define themselves in context of their employment, but rather in accordance with their role in the home community. Therefore, low status and insecure employment are perceived as less important to a new temporary worker than a more established employee.

With a target earning strategy, workers have distinctly different objectives from other workers. Target earners often want to maximize the hours they work, allowing them to earn as much money as possible in a short a period of time. Long hours are also beneficial to target earners,

as there is less time to spend earnings. In addition, many new migrants do not have the same lifestyles as more established workers; they do not have family with them, or obligations in the U.S. beyond work.

Hence, even though overtime pay is mandatory when an employee works more than 40 hours a week, a target earner might not find overtime laws in their short term best interest. This was evident in the interviews I conducted. Most participants worked more than 40 hours, but with hours spread over two jobs, making them ineligible for overtime pay. However, two participants consistently worked more than ten hours overtime in one job. Both workers were "target earners"—they wanted to earn money for specific goals and return to Mexico. They both had children in Mexico and were in the process of building houses. These workers preferred to work long hours at one job because they were able to work more hours without the search and travel costs of a second or third job. They were spared the difficulties associated with juggling different work schedules. Insisting on overtime pay could have resulted in a decline of work hours to 40.

However, not all workers were pleased when employers did not pay the required overtime. Two workers who only occasionally worked over forty hours a week without overtime pay felt that the employer was not treating them correctly. In this situation, the workers received no benefit from extra hours as they already had a second part time job.

Another mutually beneficial yet not codified arrangement observed was non-payment of minimum wage. One worker reported initially receiving less than minimum wage when he began his first job in the United States. However, since he was paid in cash during that period he took home higher pay than he would have received if taxes had been deducted from the minimum wage. Payment in cash eroded his legal protection, but he preferred the take home higher pay in that situation.

The interactions between worker and employer that arise from these diverse employment strategies are far more complex than the stereotypical image of the victimized, undocumented immigrant facing the abusive employer. While fundamental labor laws are disregarded, the actual relationships formed are mutually symbiotic relationships with benefits for both parties. However, these relationships are not between equals—the employer still has more power than the worker.

Labor laws are beneficial for workers and employers because they set a standard for conduct that is applicable in varying professions, and they protect workers from the vagaries of employers in a relationship in which both sides do not share the same power. Semi-formal employees engage in a significant trade off when they enter into uncodified relationships that undermine the protection they are given by labor law. These protections include eligibility for unemployment benefits and workmen's compensation, protection from harassment and discrimination, and overtime pay.

As temporary migrants settle, a change in strategy can be anticipated. Settlement means beginning a family, or bringing family from Mexico. Long hours and limited protections are no longer sustainable. The benefits from uncodified working relationships disappear as workers develop new strategies.

2.) Networks are crucial in facilitating semi-formal labor relationships through access to the employment, documentation and information necessary for unauthorized workers.

Networks are one of the key ingredients that allow semi-formal labor relationships to function. A network is the web of social relationships that connect people—ties of kinship, friendship, or shared geographic origin (Massey et .al 1993, Massey 1997). Accessing documentation, obtaining employment, and achieving schedule flexibility are facilitated by a strong and wide network. These networks often are composed of family, close friends, and a broader range of weak ties with people of similar ethnic or geographic origin.

The value of a network depends on a variety of factors. The first is network size, as a larger network is better equipped to provide resources than a smaller one. Another important variable described by Enchautegui (2002) is the quality of the network members. Network member's duration of US residence, employment status, and gender affect the level of assistance they can provide a new migrant. Davis, Stecklov and Winters (2002) extend this analysis to include the interrelationships of the network, such as friendship, kinship, or shared country of origin. In their analysis, stronger social relationships increase the level of assistance forthcoming from a network.

For a migrant, social networks are crucial for success. As Munshi (2003) notes, a lack of information about labor markets increases the value of network connections. New migrants rarely have sufficient information on the labor market to obtain desirable employment. Therefore, the value to a new migrant of the information and assistance of a network connection is a determining factor in employment in the receiving country.

One of the initial roles a network fulfills for a semi-formal laborer is the resources and knowledge to obtain false documentation. False documents can be purchased inexpensively, ranging from \$50.00 for a social security card to \$80.00 for a card showing legal residence. Since the passage of the Immigration Reform and Control Act of 1986, employers are breaking the law if they knowingly hire an undocumented immigrant. False papers either fool employers, or provide them with a plausible avenue to deny wrong-doing.

Second, a network assists in obtaining employment. Most undocumented immigrants are hesitant to approach an unknown prospective employer. The first reason for this is a language barrier—it is hard to seek employment when the employer doesn't speak Spanish. The second reason is the fear that an unknown person may inspect documentation too carefully. Third, many immigrants do not understand the job hunting process in the United States when they first arrive, as the application and interview process is different in Mexico.

The wait to obtain initial employment varied greatly. As the study progressed, I began to notice differences in time spent initially unemployed and the number of contacts within the community upon arrival. This is illustrated by the reply of one participant to my query about the difficulties in finding jobs:

"Pues, para mí, yo creo que tengo un poco de suerte encontrar trabajo rápido, tal vez porque tengo muchos amigos".

"Well, in my case, I am pretty lucky in finding jobs quickly, maybe because I have lots of friends"

One woman, who ultimately found work in a fast-food establishment, did not find a job for a year. Upon arrival she had two contacts, an uncle and a cousin. On the other hand, other arrivals quickly found work. One man began work within weeks due to the contacts he had—eight people from his town already worked in restaurants in Portland and through them he found work. While luck, aggressiveness and other factors affect the time spent obtaining employment, it appears that people who enter into a large network are able to find work quicker than those with a small network.

Gender is a significant factor in the functioning of immigrant networks. Researchers such as Hondagneu-Sotelo (1994) and Hagan (1994) have noted that networks are often segregated by sex. The four women I interviewed all worked in fast-food. Unlike the male workers, who had found their jobs through a network, two of the women went to the restaurant and filled out an application, one with the assistance of her husband who spoke some English. The other two relied on networks. In contrast to some of the established male networks I observed, finding multiple jobs for newcomers in a matter of weeks; the females spent long times waiting for their first job. The women I spoke with had few family members when they arrived, and those family members were older male relatives. While few contacts appear to be a contributing factor to finding employment, it

was not the only one. I observed that men with limited contacts found employment quicker than women.

Networks also facilitate vacation time and sick leave. Workers cover each others' shifts, and when a worker returns to Mexico for a visit, they sometimes find a friend or family member to work their schedule and hold their job. One example of this was two brothers interviewed. One had recently returned to Mexico for a three month vacation. His brother replaced him during this time, so upon reentry to the United States he reclaimed his previous job. Another example of interchangeability is that many participants asked friends and relatives to cover their shifts when they need time off. These transactions often occurred between the migrants themselves, eliminating the need to negotiate with the employer. A third example of interchangeability is that migrants often find replacements for openings in their jobs before the employer is aware of an opening. In this way, immigrants assist friends and family obtain employment.

These strategies strengthen the role of networks, as job security and flexibility depend upon the migrants themselves instead of the employer. Workers receive assistance from each other, and assist others when they are able. This reciprocity brings more available resources to the network, making information and references for employment available. Furthermore, migrants' obligations increase when they help each other maintain and find employment.

Networks, as valuable as they are in assisting new migrants, face limitations. First, a network composed of strong ties versus weak ties can lead to a lack of occupational mobility as the only opportunities opened by a network are low wage and low skill job opportunities. Hagan (1998) observed an example of this in her study of Mayan domestic workers' networks. She found that networks developed into a hindrance, as their integration into a domestic household meant that they did not form "horizontal links of exchange" with non-Maya. Mayan female domestic workers were

isolated into one household and unable to form the type of relationships that would increase their income potential.

Networks also leave newcomers vulnerable to being taken advantage of by more established migrants. An example of this was noted by Hondagneu-Sotelo (2001) through her observation of instances of newcomers working with established migrants for extremely low rates. In exchange, established migrants promised to give new migrants experience and help finding a job. However, established migrants would often not assist the newcomer gain employment, but rather use their labor to increase their own wages.

Networks can also cause employees to absorb employment costs traditionally paid by the employer. Fred Krissman (2000) writes that often labor recruited through friends is more malleable and costs less to the employer, as the worker and the person who brought them in feel a sense of mutual obligation. The established worker will absorb costs of training by observing and helping the new worker learn the job. At the same time, the new worker will not complain about unfair working conditions, but rather will work very hard and without complaint in order not to damage the reputation of his or her friend. Eventually, if the new worker finds a better job and votes with his or her feet by leaving, the employer's access to a network of migrant workers cushions loss from turnover and hiring.

3.) Semi-formal workers pay taxes, yet often have limited understanding of their tax obligations and rights.

One of the characteristics of a semi-formal worker is the payment of taxes. These taxes include federal, state and social security taxes. Payment of taxes is one way in which society decides whether or not a group of people is a 'drain' on the system—one of the most common arguments levied against undocumented immigrants is the cost they incur to government. Semi-formal workers pay a variety of taxes, yet have limited understanding of how to file taxes and claim refunds. This

limited understanding not only deprives them of money they are entitled to, but also may make it difficult when they attempt to legalize their status. In addition, their above-ground economic activity places them at risk of discovery and termination by employers due to actions taken by the federal government such as Social Security "no-match" letters.

Undocumented workers still have the obligation to file their taxes with the Internal Revenue Service despite not being authorized to work within the country. To allow people ineligible for a social security number to fulfill their tax obligations, the IRS developed the Individual Taxpayer Identification Number (ITIN) system in 1996. The ITIN is not only for unauthorized workers, but also includes all foreign-born people ineligible for a social security number. Since its inception, 6.9 million ITIN numbers have been distributed, with 70 percent of them going to Latinos (Yzaguirre 2004).

Over the course of the interviews, the issue of taxation appeared several times in conversations. I did not originally ask specific questions about it; I asked if workers had taxes deducted but not about whether they filed their taxes. However, when the issue of taxes came up, interviewees asked me if I knew how to file a tax claim. They asked me questions about the ITIN, and if I knew anyone who had filed. Workers were fearful that if they filed an ITIN claim, their employers would be notified and they would lose their jobs.

Whether semi-formal workers file for taxes or not, social security payouts are deducted from their checks. This has created a unique set of problems for the Social Security Administration (SSA) as it attempts to match funds paid with accounts. When funds cannot be matched, they are placed in the Earnings Suspense File (ESF). The Government Accountability Office (GAO) reports that four percent of all reports are placed in the ESF. The reports that SSA places in ESF are narrowly distributed in a few key industries, which the GAO notes are industries that rely on relatively

unskilled and migrant labor. The top three employers are eating and drinking places with 17 percent, construction with 10 percent and agricultural production with seven percent (GAO 2005).

The GAO (2005) has inferred that many reports in the ESF file are related to unauthorized employment. They base this on figures from reinstatements, which is the process whereby earnings reports are matched to an individual's file. While before 1986 the percentage of reinstatement to foreign born people was 7.85 percent, by 2003 this percentage had slowly increased to 20.72%. Of these, 25.58 percent are from Mexico. Not all foreign reinstatements indicate unauthorized employment, but some do. Before 1986 seven percent of foreign born workers with reinstatements had earnings before they received a social security number. Between 1986 and 2003 this percentage grew to 32 percent. This suggests a large growth in unauthorized employment in the last few decades.

The amount of money paid to social security by unauthorized immigrants is significant. Estimates reported by the *New York Times* are as high as seven billion dollars a year. If true, this means unauthorized workers contributions comprised 10 percent of last year's surplus (Porter 2005).

One consequence of trying to match numbers and files is that the SSA sends no-match letters to employers, informing them that the social security number provided by a worker does not match the name given by the worker. Often times, even though the letter tells the employer not to remove employees because of the no-match letter, employers become confused and/or scared and fire their staff (NELP 2004). One worker I spoke with told me that the entire housekeeping staff of one hotel where she had worked was fired after a no-match letter came in regards to one worker. Management then checked the documentation of all workers, and fired them all.

The issue of taxation has several important consequences for workers. First, most semiformal workers are low income workers who would be entitled to a refund of some of their tax money. Not receiving this money means they are taking home less disposable income. Second, as strategies of workers change and they move from being a target earner to a settler, their ability to demonstrate "good moral character" for the possibility of legalizing their status is diminished if they have not followed tax laws. Furthermore, their banking opportunities are limited without an ITIN number as banks need an ITIN or SS number on interest bearing accounts to report to the IRS. This means they are less able to establish credit, which has implications for access to housing, car loans, and all types of credit institutions which are integral in moving beyond a low wage day to day life.

The fear that keeps immigrants from filing taxes is not unfounded. While the IRS does not have the authority to engage in wholesale exchange of information with other federal agencies, there have been reports of the Treasury Inspector General for Tax Administration using ITIN information to prosecute immigrants. These reports come from one agency in Kentucky, but many immigrants are concerned about the risk (NELP fact sheet).

Conclusion and Suggestions for Future Research

Scholarly literature to date has provided limited theoretical understanding of informality and unauthorized immigrant labor. Understanding the complexities of the informal labor market highlights the unique situation for workers who have false documentation, pay taxes, and work in a mostly regulated atmosphere. These semi-formal workers appear to form mutually beneficial yet uncodified labor relationships with employers, rely on networks to facilitate employment, and have little understanding of taxation.

The legal changes of IRCA in 1986 suggest employers are less likely to hire workers without documentation. As false documents are relatively easy to produce, it can be expected that the category of semi-formal workers will increase. In addition, rapid gains in the Mexican population suggest that unauthorized immigration is also increasing.

The spectrum of formality in the labor market distinguishes employers as they develop unique strategies to adapt to different situations. There is a need for research which not only further examines these strategies, but also addresses the long-term implications of such strategies. Questions which are little understood by scholars include how semi-formal strategies affect attempts to attain legal status, and their implications for future attempts to purchase homes, cars and invest in businesses.

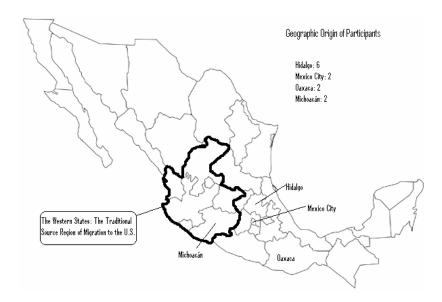
Furthermore, future work is needed on the issue of taxation. There is strong evidence that unauthorized workers contribute substantial revenue to the federal government and Social Security, even though most are unlikely to receive the corresponding benefits. While much analysis and controversy has focused on the questions of whether or not unauthorized immigrants are a net drain on state and local finances, analysis at the federal level is needed. Furthermore, analysis on the consequences of taxes for workers is also lacking. It appears that not only do substantial numbers of migrants not file their refunds, but that Social Security no-match endangers workers present employment.

Appendix: General demographics and Results of the Interviews

The twelve participants consisted of four women and eight men. The average age of the sample is 34.75 years. The two youngest participants are 22 years old, and the oldest is 60. The rest of the participants are within the 30 to 40 year range. The average number of years of schooling is 11.17 years. The lowest number of years of schooling is six, and the highest 16. After the *preparatoria*, or high school, the most common form of further education is a technical education for a specific skill.

Researchers estimate the states of Guadalajara, Nayarit, Colima, Zacatecas, Aguascalientes, and Guanajuato send between half and three quarters of the migrant flow to the United States

(Massey et al., 1987). The majority of participants do not come from the typical sending states of western Mexico. Of the migrants interviewed, only two originate from a state in the traditional sending area—the state of Michoacan. Six participants originate from the state of Hidalgo, two from the state of Oaxaca and two from Mexico City.



Of the eight men interviewed, six are married. At the time of the study, none of the men's wives lived in Portland. Of the four women interviewed, only one is married, and migrated at the same time as her husband. None of the women came to the United States for family reunification, a common explanation for the migration of women.

Six of the twelve respondents supported children at the time of the study. One has self supporting children, and the other five do not have children. Three of the respondents have children that live or have lived in the United States. One woman's son joined her at the age of eighteen for one year before returning to Mexico to attend the university. Another had three children—one born in Mexico and two in the United States. The third had two children who had stayed behind in Mexico, however, at the time of the interview they were in the process of entering

the United States with their mother. The other three respondents have children in Mexico, with no plans to bring them to the United States.

In examining wages earned, I divided up counter service into two categories: local fast food and chain fast food. The reason for this is that the local fast food person made significantly more than the other fast food workers, and combining the two wages would not have been informative on the actual wage conditions of the workers. On average, the wages were highest for the one individual in local fast food. Beyond that, wages were highest in full service restaurants.

Table 4: Hours and Wages of Participants at time of Interview

	Number of	Average	Average	Average	Average
	Participants	Wage	Hours	number of	hours
			worked per	jobs	worked in
			job		total
Local Fast	1	12.00	50	1	50
Food					
Chain Fast	3	8.12	36.25	1	36.25
Food					
Full Service	8	9.58	35.65	1.625	57.94
Restaurants					
Combined	12	9.02		1.42	53.27

Workers surveyed were completely segregated by sex; all the fast food workers were women and all the full service restaurant workers were men. In addition, among the people surveyed, only men held more than one job. Indeed the men working in full service restaurants averaged 1.625 jobs, for a total average of 57.94 hours a week. The person who worked the most was working 89 hours a week.

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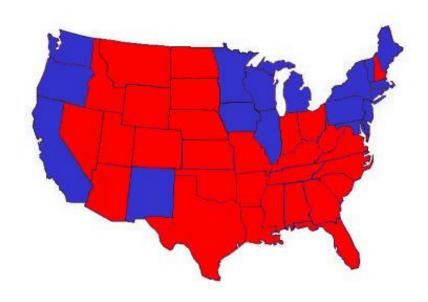
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Another Visit to Red and Blue States

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-2000 USA Presidential Results

Interpreting the intersection of Queer, Marxist, and other political economic theory may provide a more textured understanding of contemporaneous political, academic, and media assessments of social thinking and its supposed patterns. Another understanding of the popular, diagrammatic prescription of "Red and Blue" state America reveals this rhetoric as a disguise for political economic ends. Interrogating the politics of moral panics and "culture wars" emphasizes that central to this supposed schism is the anxiety of "other" sexualities and moralities and their implications on the capitalistic family. Querying this red/blueprint is significant for its illumination of moral panics, the familialist rhetoric of bourgeois economic interests, and leftist discourses of identity politics and pseudo-political queer strategies. I argue that a political economic critique of both right and left political discursive traditions exposes the red and the blue state rhetoric as a diversionary political tactic that evacuates a meaningful critique of capitalism.

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The term 'blue states' describes those U.S. states that vote for the Democratic Party in presidential elections, the only national elections held in the United States. The origin of the term is from television newscasts that reveal on presidential election night which candidate has carried which states in the U.S. Electoral College usually through a map of the country with the states predicted to go to one candidate or another lit up in one primary color or another. Traditionally the color used for the Republican Party is red and the Democratic Party blue, and thus the states the Democrats usually win are referred to as blue states. Blue states have several demographic differences from red states, thus the term now has cultural implications as well, implying a liberal region or a more liberal type of American.¹

How about a truce? The intolerant religious fanatics in the red states will continue not complaining about high taxes, secular education and gay-rights parades in the blue states, and the proponents of tolerance in the blue states will stop bothering everyone in the red states.²

As I was passing through farm country somewhere in Illinois I saw a neatly manicured lawn, abutting a brightly greened field of corn. In the yard was a cacophony of yard signs that urged citizens to support certain candidates in the upcoming election. Dotted throughout this yard, striped by the careful clipping of a lawn mower, were signs that declared BUSH-CHENEY as an appropriate choice for the President and Vice-President of the United States in 2004. The sheer number of these signs left no doubt as to the occupants' political affiliation. A community a few miles away held opposite political sentiment; each yard along a tree-lined street declared allegiance to JOHN KERRY, and a stronger America. Considering that Illinois was penned as a "strong blue state," according to a recent website dedicated to predicting electoral votes, I wondered if the BUSH-CHENEY supporters, just miles away, were hoping that their numerous political placards could assuage the reality that Illinois would "go blue", analogous to screaming loudest in a debate to ensure winning. Yet, to me, the similarity of the yards and houses and communities made either indistinguishable without the signs. Are there real differences between the two? What are the fears and anxieties that fuel such political allegiances?

As I began to look at the red-blue divide in more depth, it became clear that a rhetoric of "family" was crucial to those on both sides (though they meant very different things with the word). I also noticed that real, existing families in the United States have material concerns that are not being addressed by either political camp. In this paper, I will be examining how the political right in the United States—those in the "red states"—have redefined political discourse to shift focus away from material concerns and onto issues of the "family"—actually a code name for arousing fears around topics of sexuality. Unfortunately, the left—those in the "blue states"—have been surprisingly complicit in this shift in focus, allowing so-called cultural (and especially sexual) issues to eclipse real, material concerns facing most U.S. citizenry.

In this paper I will question what material, economic concerns are disguised in the political idiom of red and blue states in order to explore the political contentions between the right and the left in American political discourse. I will first examine the rhetoric of the red and blue state electoral map. Then I will assess of the discursive tradition of 'familialism' to show that foundational to right and left political rhetoric is a contested definition of the family. Next, right-wing politics of moral panics and familialist rhetoric of 'traditional' morality will be examined; this will be complicated by an employment of post-structuralist and historical constructionist interpretations of the same. Following, I will interrogate leftist (especially queer theory) discourses of affectional families, identity politics and political performance strategies (especially those that attempt to disrupt the right's assertion of 'tradition' and 'family' using post-structuralist and historical constructionist elucidation). I will fault these for their own peculiar construction (ironically) of the family, thus highlighting the particular resonance that familialist rhetoric enjoys in both political ideologies.

I attempt to illuminate the problems and inconsistencies within both right and left political, capitalistic projects (and conceptualized in the red and blue state electoral maps) as disguises of real, widespread material and economic worries. The materialist concerns of the so-called American middle class will be retrieved from underneath this deceitful moral debate of the red and the blue, sustained by both right-wing moral crusades *and* within sexuality and queer studies that simultaneously rely on and disregard historical capitalism in their psychoanalytically personalized treatments of identity, morality, the family, and the self. Material, economic anxieties are best understood, then, by employing the critical tradition of Marxism and rejecting more flexible neo-Marxist theories that recognize politics of identity without critical attention to their construction. I will be mindful of how social construction and post-structuralist thought claim to be concerned with the 'instances of discursive production...of the production of power and of the propagation of

knowledge which makes possible a history of the present' (Foucault 1977). This paper's history of the present, then, presents "the red and the blue" as a reductionist overlay designed to invoke moral difference as an illustrative diversion from structural and economic deficiencies.

Red State-Blue State

Are you in a red state, or a blue state? Are you in a red county, or a blue city? Do you feel alienated in your colored zone? What political color do you morally believe in? Do you fear the other? Do you claim your post-election allegiance with a neat, plastic identification bracelet? The commonality of this rhetorical course employed by government, academia, and media—intent on dividing American voters into manageable, understandable, statistical parts—is as frequent as the elections that presage them. Since the contested 2000 Presidential election results between Al Gore and George W. Bush, the parlance "red and blue states' has been *the* provocative neologistic tool for dividing the interests, moralities, and anxieties of American people.⁵ Simultaneously, media, academics, and government officials react and fret that America has become hopelessly divided.

Regardless of any demographic political value of this supposed schism, the red and the blue offers a background to an examination of how American citizens are taught to regard their system of government and their place in the political landscape supposedly reflecting their hopes, resentments, anxieties and respective familial fears. The red-and-blue map is a schema that immobilizes the axes of political discourse that intersect all forums of American society: religion, media, government, and entertainment. It maps hypothesized dissimilar moralities, literally and figuratively, within the borders and boundaries of an atlas of 'values'.

Respected, widely circulated newsmagazines have promulgated this 'red and blue' concerncum-delight into front-page warnings (the *New Yorker* magazine memorably splashed two angry, red and blue colored faces staring endlessly into each other's eyes, mouths twisted and agape, fireworks exploding in the background). Popular, political culture has been flooded with the paroxysms of pundits, personalities, writers, and certain scholars who proclaim America as hopelessly, endlessly divided by a loathing between the red and the blue caused by a deeply dissimilar relationship to morality, religion, values, family, sex, justice, pragmatism, and even the products selected to be eaten, drank, and enjoyed.

There is no need to continue to debate the red and the blue using the terms and methods that have created such a schematic. A minority of scholars and journalists are already querying the red and the blue (after four years of constructing the debatable morality map) as election hysteria

that never quite ebbed in the wake of the contested 2000 election. Hamilton College's James S. Sherman Associate Professor of Government Philip Klinkner contends that many journalists and political pundits have needlessly hyped the idea that Americans are isolated *and* isolating themselves along political, territorial lines. According to Klinkner's study, "The red and blue maps give you the mistaken impression of geographic schism in American politics—that all Democrats live in one area and all Republicans live in another. In fact, there is quite a lot of mixing of Democrats and Republicans over the electoral landscape." Klinkner theorizes that most Americans live in "purple" areas. "The great majority of Americans live in a county where neither party wins in a landslide and where both parties have managed to win at least one presidential election in the last 16 years."

Yet, regarding the red and the blue as *only* the results of a hyped schism ignores the way that the red and blue diagrammatic symbolically works for a specific understanding of social thinking and political discourse. This, though, should not be misunderstood as a justification for this type of tool. Debating the red and the blue with another palette of political understanding (with purple, or yellow, or other colors as some statisticians, journalists, and political scientists have done) only re-engineers the disguise, blunting other analyses, and bringing to the fore an indispensable reminder from Karl Marx's—avoid the temptation to engage in the exercise of "phrases fighting phrases" with no practical, material end.

It has been argued that political discourse in America has been coarsened by the focus on the ultimately ethereal conceptions of morality and values, which fuels rhetorical attacks on the 'character' of politicians and their political parties. Any number of recently published political treatises provide a glimpse, and a large measure of validation, to this claim. The majority of these polemics, though, do nothing to demystify the red and the blue, but rely instead on its supposed truths, thus, making their own arguments of intractable moral divisions ever more salient. In contrast, I would like to strip the red and the blue of their rhetorical mapping power and interrogate them for the discursive sets of family, morality, and politics that both red and blue represent.

Familial Colors of Morality

In the scholarly work One Nation, Two Cultures: A Searching Examination of American Society in the Aftermath of Our Cultural Revolution, Gertrude Himmelfarb, historian of the Victorian-era, converts perceived moral anxieties into distinct "cultural" differences that predisposed, if not prejudiced, much of the rhetorical debate that followed the 2000 Presidential election (1999). Her book opens with a quote by Adam Smith from *The Wealth of Nations*:

In every civilized society, in every society where the distinction of ranks has once been completely established, there have been always two different schemes or systems of morality current at the same time; of which one may be called the strict or austere; the other the liberal, or, if you will, the loose system. The former is generally admired and revered by the common people: the latter is commonly more esteemed and adopted by what are called people of fashion (3).

Despite Himmelfarb's assurance that Smith was not attempting to indicate that all people subscribed to the two systems of morality, nor shared their cultural conventions with the appropriately strict or loose prescriptions, she does grant his two-system model central, touchstone status in her exposition of the thus-theorized two moral cultures of America.

Adam Smith, in Wealth of Nations, ranked America as a noteworthy exception to the twosystem model because of what he found to be a virtuous, Puritan impulse sustained in all the American people and in their representative government. Himmelfarb uses this position to laud America for its Puritan ethos, and in the process views the cultural upheavals of the 1920's as nothing more than 'petting in automobiles', but the 1960's 'counter-culture' (and its 'hedonisms') as a dangerously ironic and supremely damaging product of the spoiled youth of capitalistic society. She posits that those who joined the counterculture from the underclass, without the cushion of privilege to escape if its libratory promises failed, were introduced into a culture of lasting ethical, moral, and economic poverty (Himmelfarb 25-26). She is typical of right-wing theorists in positing that the economic poverty facing many Americans results from a culture of poverty, assuming that if you can change the cultural conditions—code for sexual ethics—it would magically lift these people out of poverty. Similarly, many right-wing scholars and historians attempt to insulate their arguments from Marxist and leftist criticism by recognizing the contradictory conditions that capitalism allows for, but never calling for a reformation of capitalism (or any part thereof); instead aiming for a restoration of civil society as the seedbed of virtues lost in the cultivation of America's morally relativist culture. "It is the process of reformation and remoralization that now engages the hard advocates of civil society as they confront the hard problems of democratic society—education, welfare, crime, popular culture, and above all, the family" (Himmelfarb 44).

While many leftists have dismissed such arguments as patently ridiculous, they have been repeated often enough that they come to resonate with a large portion of the public. Jeffrey Weeks, Judith Stacey and other feminist and queer scholars are reacting to a similar recognition that

sexuality and family are the touchstone for the contemporary anguish about values. "The Left has for too long assumed that the value-laden discourse of the morally conservative did not deserve a considered response from liberals and radicals because such ideas were self-evidently ill-intentioned" and this left a theoretical vacuum that new-leftists now seek to fill without "the prerogative of any type of relationship, least of all a mythical and heavily mythologized traditional family" (Weeks 53). So, even despite Weeks', and others, hesitancy to reference a concretized cultural "family", he must, and does, conjure a model of a family of "affectional choice" (53). Chafing at the right's version of a totalizing nuclear family, Weeks, Judith Stacey, and other "radicals" must counter with a familialist theory of their own, so as to enjoin the debate about the production and reproduction of certain values that they hope are more fully developed, what Weeks calls a "love ethic" (54). On the rhetorical boundaries of the red and the blue states lives this contested American family. For the right, it is a family of tradition and obligation. For the left, it is a family of affection and choice. The family's esteemed past, present make-up, and future purpose are the elements debated in this contested message embedded in the dichromatic political warnings of red and blue.

Both the right and the left, however, ignore or reduce the capitalistic system that engineers the family, in the first place, in various permutations As much as scholars, politicians, and media pundits of the right imagine the less-than-hospitable effects of capitalism on the family, they are loathe to trace an arc of the "family" to its inception in the same utopias that capitalism continually promises. As Himmelfarb writes, "The family now seems to be in a more perilous state than capitalism," but with her imaginary differentiation intact (47). Thus, rightist scholars and politicians identify capitalism and its "impact" on the family as a tangential dialectic that should only be of concern when lamenting, say, the rise of the entertainment industry or other deleterious social institutions.

For the right, the family is now breaking down, under constant assault by non-patriarchal, co-habitational, single-parent, and other "non-traditional" families. These dangers are located beyond the reaches of capitalism. The left responds by arguing for choice, autonomy, and representation, unwittingly reproducing this familialist rhetoric. Scholars who remind that the history of capitalism is not separate from the historical construction of the family are only employed by leftists to affront the right with ripostes that narrate the variation in the "nature" of the family, but these histories are abandoned when it complicates the emancipatory aims of politics.

The red states see the family as rooted in a hallowed tradition, vulnerable to toxic individual choices that are excused (or even assisted) by a liberal welfare state. The blue states see the family as

longing for individualized recognition and choice from an even-handed non-moralistic liberal state, but consistently disrupted by an adoption of its own omniscient rhetoric of identity by political antagonists. The political dilemmas about "what to do" with these contrasting concerns stimulate the right-inspired moral panics, which seek to dramatically bring into sharp relief the topography of the existing moral erosion.

The Red State

For Karl Marx, "culture really has only one parent, and that is labour—which for him is equivalent to saying, exploitation. The culture of class society tends to repress this unwelcome truth; it prefers to dream up for itself a nobler progenitor, denying its lowly parenthood and imagining that it sprang simply from previous culture, or from unfettered individual imagination" (Eagleton 8). The right-wingfamily tradition is unmistakably the noble progenitor and, simply, it is conceived as vulnerable to attack.

The breakdown of the American family for much of the right has taken on a mystical, pathological quality. This discourse imagines family life theoretically rooted in a wholesome, patriarchal, nuclear culture. "Pathologies" prey upon and breed within lives that defy customary these familial obligations and expectations. Alternative family proponents are assailed for turning a blind eye to the various and variable self-evident statistics of familial breakdown (everything from poverty, to crime, to homosexuality, to abortion). The pathologies that continue to breakdown the already eroded contemporary family culture and "culture", in some general form, are thus medicalized as pathological social problems. This rightist lexicon distances structural social problems from the real, material capitalistic matrix, from which they emerge. Social problems and anxieties are, therefore, located in some free-floating, treacherous moral climate where improper choices are made and related diseases result. I am not arguing that moral conditioning is unnecessary for society to function, I am simply noting that right reduces all social programs to moral pathologies. The more spectacular the ensuing moral panic, the better.

Moral panics are political struggles that have been condensed to control the means of cultural reproduction. Moral panics manipulate social actors into interpreting some things as profoundly serious and other things as not worthy of sustained attention (Cohen 2003). This is reminiscent of Anthropologist Gayle Rubin's discussion of sex and sexuality as occupying an exceptional place in political discourse—one that relies on the "fallacy of misplaced scale" where sex and sexuality are inherently sinful, dangerous, destructive, and a "corollary of sex negativity" (11). As

such, aspects of sex and sexuality (e.g., gay marriage, abortion, pedophilia, teen pregnancy) continue to be a most compelling theme for these moral panics.

The right uses moral panics to harness other social anxieties (especially economic ones) and diffuse them into warnings of sexual damnation, which are then coupled with the ongoing concern for the vulnerable family. Cauthen and Jaspers, in their review of Philip Jenkins Intimate Enemies, noted that moral panics tend to follow a similar sequence: a problem is identified as extremely common, rapidly growing, and largely unrecognized; innocent victims are identified (here, the family); and remedial policies are suggested. "Each panic elaborates and extends symbols from past panics; this gradual layering increases the plausibility and threatening nature of each panic, no matter how little hard evidence there may be for it" (Cauthen & Jasper 497). Rubin also notes the layering of the panic using past and present political worries: "right-wing ideology linking non-familial sex with communism and political weakness is nothing new." Neither is linking sexual immorality and national weakness to "sex education, homosexuality, pornography, abortion, and pre-marital sex" (Rubin 8).

Sexual moral panics rely on the construction of class of innocent victims (Patton 1993). The family as the innocent victim, though, is paradoxical as it is also the social site where personal, moral failures supposedly take shape. The innocent family (naturally functional if certain moralities are in place) relies on "fictionalized ideals and composites [that] have become more real than reality itself, exacerbating the sense of dysfunction" which serves as continuing, circular justification for frequent right-wing moral crusades (Creed 2000). The 'moral crusaders' who drive the moral panic want to help those beneath them to achieve a better moral status and to erase the dangers that lurk in specific moralized class conditions that threaten the family (Becker 140). The more they succeed, the more they derive power from their superior, moral position, and the more they lay claim to nationalistic ideals. Within the halls of congressional and executive power these moral, nationalistic crusaders have found sympathetic ears.⁸

The red-state, blue-state atlas is partly constructed as, and interpreted by, the right as a series of moral panics. Gay marriage, abortion, single-parent families, drug use, Internet predation, all of which are condensed into one binarism: *We* care about protecting the morality and the family; *They* don't. These moral panics are now territorialized—anxieties mapped by cartographers' borderlines. This map is designed to excite and aggravate the citizenry with appeals to the seeming dysfunction of the American family, as neatly represented in the dysfunction of the national union.

The Blue State

The left, especially within academia, repeatedly reminds us that the regulation of sex is a common feature of human society, whether in the form of kinship systems, the economies that traffic in women, or sexual taboos regarding same-sex partners. Foucault calls these regulatory cultural regimes "deployments of alliance"; "sexuality" is one of the social regulatory methods of sex acts, thus, sexuality is the "name that can be given to a historical construct... a great surface network in which the stimulation of bodies, the intensification of pleasures, the incitement to discourse, the formation of special knowledges, the strengthening of controls and resistances, are linked to one another, in accordance with a few major strategies of knowledge and power" (Foucault 105-106). Human actions have and continue to be subject to these historical, discursive forces and, thus, to change. Therefore, sexuality-based classificatory schemes are equally embedded in time and place.

Theories that stress the social constructedness of sexuality violate common-sensical assumptions that sexuality is natural and essential. "For all of us, essentialism was our first way of thinking about sexuality and still remains the hegemonic one in the culture" (Vance 160-161). The constructionist framework challenges the natural status of many domains, and especially an understanding of the family that relies on the naturalness of gender and (hetero) sexuality; the family as a biologized, natural state is called into question, as is its relationship to and within capitalistic development.

Before the industrial capitalistic transformation, the 17th and early 18th century 'family' was generally composed as a self-sufficient unit: independent and patriarchal. The family and its immediate members ran household economies. For all intent and purpose of the law, family members were owned by the father (or other male head of household). This patriarchal household economy experienced a major disruption as wage labor, at the behest of an emerging merchant class in urban centers in the northeast of America, fashioned family members into wage earners. This quickly became a "permanent condition" for the majority of men, though it was necessarily uncommon for women (D'Emilio 170-172). This massive process of proletarianization and urbanization broke down both productive and reproductive patterns. Working class wage-earning youth, by the later 19th century, were more economically and sexually autonomous than in any other historical time frame. It was here, in the wage laboring lives of urban and commercially dependent residents, where the conditions for "private", emotional, erotic lives developed. The social space that produced the private, erotic self was carved from the social order that depended on the collapse of the self-sufficient family and the investment in the ideological ideal of free-labor. The meaning of

heterosexual relations changed as the imperative to procreate became disengaged from the bond of marriage. "Heterosexual expression came to be a means of establishing intimacy, promoting happiness, and experiencing pleasure" (D'Emilio 171). At this time, the emerging discourse of sexology began to suggest a kind of erotic speciation. This speciation, as Michel Foucault expansively hypothesized in *History of Sexuality Vol. I*, resulted in the invention of the "homosexual", as well as other categories of "perversion". The middle-to late-19th century witnessed a solidifying of the legal definitions of sexual outcasts as sexual behavior became enmeshed in state and cultural surveillance. The social mechanisms of medicine, psychology and law aided in their own professional legitimacy by their ability to name, define, and divide the social body by its supposedly deviant and threatening members (Greenberg; Terry; Gagnon & Parker). Therefore, as the new modes of production assisted in the production of new conceptions of "self" and a new construction of the "family", it also produced a professional class concerned with and intent on discovering and defining the same.

This historical reading has major implications for understanding the modern political deployment of morality and, thus, the moral panics that ensue in defense of the natural family. Categories of perversion, as invented moralities within capitalistic expansion, are targeted as dangerous to the bourgeois family. Paradoxically, anxiety about a threatened, dysfunctional family was (is) produced by the same capitalistic conditions that developed the social space for new conceptions of the private, sexual selves that supposedly threaten it. If our contemporary understanding of sexual morality is actually a product of this development within capitalism, where does that leave us? Some sex radicals would argue for a rejection of the trappings of nuclear family and desire to celebrate sexuality for its own sake, while others use this historical argument to reveal the family as an inherently flexible social structure allowing for assimilation into an ever-expanding social norm.

The debate, whether to radically reject the traditional 'family' model as a liberatory practice or assimilate within the model of nuclear familial tradition, is complicated by the fact that these historical constructionist theories expose the capitalistic, historical inventions of not only the family, but "gay and lesbian" and "alternative sexualities." The development of capitalism thus engineers both the capitalistic fantasy of family and the very categories that "deviant" sexualities now inhabit and identify with. In essence, the left has propagated social deconstructionist as part of an emancipatory political strategy, while attempting to assimilate within the very models that are supposedly sp oppressive. In other words, what has the potential to elucidate the intertwining

discursive understanding of capitalism, morality, and the family has been employed for specific type of political lamentation, and an evacuation of a collective political response. The left has become entrenched in the political stratagem of offering personal tales of oppressive experience in an effort to counter the right's crown of capitalist morality, while aiming for the same. This personal identity politics is constructed as political liberation, as much as the blue states are hypothesized as tolerant and liberal toward diversity for a greater good. This model has found its greatest traction under the mantle of queer theory.

Queer theory has an aim to queer—to alter, to contrast, and delegitimize—heteronormative knowledges and the subjectivities and social institutions that it engenders. Ironically, queer theory is formed in reaction to the restrictive embrace by the left of sexual and gender difference. Queer theory wants more—it wants to push the boundaries of assimilationist tendencies that this embrace has on a "radical politics" (Sullivan 2003). What queer theorists may have dramatically failed at, though, is just that: politics of any kind, especially a "radical" one.

Queer theory relies on a narrative which "resistance and agency are presented as driven by uncontainable desire; emancipation is a teleological story in which desire ultimately overcomes social control and becomes visible" (Scott 400). Wendy Brown argues that this binds gays, lesbians, and queers with narrative attachment to wounds of a repressed liberation; a liberation restricted in the shadow of normalizing capitalistic narratives of gender, sexuality, and family. Seeking emancipation form these norms by questioning their construction ignores the similar capitalistic invention of the liberated identities "queers" seek to claim (Brown 1995). Liberal political strategies thus place their narrative of individuated (often "autonomous") experience as the central feature of address and of celebration, while ignoring its own embeddedness within capitalism.

Even though queer theory professes, in various "licensed, limited, safety-valve carnivalesque transgression...as postmodern poetics" to destabilize political oppression with an ever renewed identity politics—it is only a beginning to recognize individual sexual experience (Kiley 1998). The agenda of identity politics, emblematic of the left for over three decades, "sets out to legitimize oppressed social groups while leaving the organization of social life in fundamental ways unquestioned", nowhere is the more the case than in its anemic, if not wholly absent, critique of late-industrial capitalism (Hennessy 215).

For much of queer theory, there is a real ambivalence about structuralist, capitalist interpretation of sexual subjectivity in all its dimensions, instead preferring to cling to ahistorical evidence of personal exploitation. ¹⁰ Sexual identity politics has failed to create "real" solidarity across

class lines, while preaching legitimization, inclusion, and liberation vis-à-vis intimate and affectional encounters. This failure supports the ultimately hollow "truth" of red and blue state citizens being totally alienated from each other. Queer studies enables an illusion of critique in "porous, gender-flexible and playful subjects, subjects more adequate to the multinational commodity exchange where the expressive self and transcendent morality of liberal humanism have become embarrassingly inadequate" (Hennessy 232). The 'playful' milieu of identity performance marks a vivid discursive space where there is an intense attraction for the identity politics. It is precisely these kinds of politics that allow the emblematic partitioning of America in maps of red and blue.¹¹

Another Visit to Red and Blue States

"To paraphrase Karl Marx, women and men make their own sexual and affectional history. But they do not make this history just as they please. They make it under circumstances given by the past and altered by their political activity and organization" (Katz 179). Marxist theory insists that the circumstances of the past and the political activity of the present are determined by the economic production and reproduction of a society. The real conditions of material existence are the foundation of the "ideas...conceptions...consciousness...directly interwoven with the material activity and the material intercourse of men, the language of real life." Thus human "life is not determined by consciousness, but consciousness by life" (Marx & Engels 154, 155). Speculation about human nature, if divorced from political economic consideration, is a fallacious version of human interactions within a society. The same can be said for the "sex" of a people—it is equally fragmented and reflected by the real material conditions of the society in which its specific interpretation is negotiated. The radical shift of income and assets to smaller percentages of people, questionable allocations of public funds to certain sectors of the U.S. economy, a lack of public funding for education, health care, and other social needs, and an erosion of civil rights, are all critical material concerns that must be interpreted and addressed in any society. To do this historical political economy can neither be abridged, nor ignored. The red and blue states, constructed by both right and left political rhetoric, are guilty of both.

For the red states "family values" is a utopia both being sought, and that which must be maintained. ¹² Both 1988 and 1998 General Social Surveys indicate that evangelicals are still largely socio-economically disadvantaged; American evangelicals have been the most active proponents of the right's discourse of family values. In other words, those who hail "family values" willingly mediate between disadvantageous economic conditions in the name of morality and the nation—a

perverse rationalization of the economic conditions that are the material roots of the social anxieties. Their unique importance, as the most loyal constituency of the Republican Party, is obvious when considering the Republican Party is ideologically unable to locate capitalism within any social problem. The family, then, "thus 'solves' the actual economic contradictions of capitalism for the capitalist, as familialism can explain and justify exploitation, crisis, and suffering in private terms that absolve the industrial capitalism of blame" (Cloud 77). In other words, the "family" is imagined as both the original location of social ills, and the site of administering cures for capitalistic social problems. The real materiality of the low-income, Republican family is exposed as "long hours, low wages, and inadequate housing have meant that workers have rarely identified with the bourgeois family ideal" even as much as they have attempted to save it (Cloud 76).

After the hypothesized "failure of Marxism" the ensuing leftist discourse attempted to engage in "radical" disciplines and identity politics with the intention of disrupting the deeper logic of familialism, but only further dislocated political attention onto the intimate sphere. In doing so Dana Cloud argues that "radical" leftist thought, like queer theory:

...in spite of its manifest opposition to normalizing familial discourses, replicates this logic. What queer theory, as a variant of post-al retreat from class politics, shares in common with mainstream discourses on 'family values' is an explicit effort to atomize and privatize the experience of social, economic, and political phenomena—i.e., oppression of gay and lesbians and exploitation of labor in a system that depends on the ideal—as much as the reality—of the nuclear family. Further, queer theory, like family values rhetoric, discredits collective political responses to social problem in favor of ludic textualist strategies. It poses utopian experiments in intimate fulfillment—akin to the 1950s suburban family ideal—in lieu of a collective, political struggle (Cloud 72).

Imagined intimate, private spheres are thus imagined to be effective sites of resistance and emancipation for both the right and the left. In this way capitalism's structure is left unquestioned, while projecting structural, economic problems onto the 'personal lives' of its subjects. ¹³ Socialized political attention is thus continually deflected into pseudo-political strategies of "self-scrutiny, self-development, and self-blame" concerned with the invented arena of private life. Of course, 'private' life is political in capitalist society, since under capitalism, 'privacy' names those realms that that are

obscured from political view and absolved of collective responsibility and public control" (72-73; 74).

Despite this constant deflection, moments of socialized protest do erupt—momentarily tearing back the curtains on the careful stagecraft of capitalism. In 1999, protests attempted to disrupt the World Trade Organization "private" meetings in Seattle, Washington. Since then, many scholars and political commentators have noted the unique combination of political committees that had assembled, bringing together a number of political objectives in solidarity to protest these undemocratic meetings (Medovoi 2001). Remembering that in Marxist thought, political resistance is not rooted in the protection of "private" families, "intimate" spheres, or the invention of ever-more alternative subjectivities, but that "the common ground for political action comes from solidarity—across race, gender, sexuality—of the working class", reminds one that the protests in Seattle were temporally unique and uniquely dangerous to capitalism (Cloud 89). They also speak to the way the moral panics melt away if political economic concerns are adequately articulated and circulated. Unfortunately, the message of solidarity that was spoken in 1999 has since been shouted down by red and blue schemas, which replace the Seattle critique of corporate capitalism with the discordant concerns, and conflicted "personal" lives, of those who reside in the red and blue states.

Morris Fiorina, a Stanford political scientist, argues in *Culture War? The Myth of a Polarized America* that hypothetical "cultural" divisions in the American populace are not as pronounced as some have suggested (2004). Significantly, his research polling prior to 2000 reveals that there existed widespread concerns (even fear) about corporate "power". After the Presidential Election of 2000, contested descriptions of the American social climate, like Himmelfarb's *One Nation, Two Cultures* and Hunter's *Culture Wars* became newly influential. So, deep, and potentially destabilizing critiques of corporate power, capitalistic malfeasance, and oligarchical influence were overwhelmed by a contested election, a moralization of electoral patterns, and later a "war on terror". It is of no surprise that corporately endowed Presidents, like George W. Bush, make no attempt to stem corporate corruption, and resist all significant efforts at corporate reform while waging wars in the name of "free markets".

After the contested election of 2000, the red and blue states represented the Presidential electoral voting pattern. They were then neatly mapped onto dichromatic t terrain—defining the

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borders of those things called moral values. A critique of both right and left political projects, which ideologically and rhetorically construct such a map, are justly illuminated as familializing and personalizing capitalistic strategy that diverts attention from the inequitable structures of economic life. The material harms and anxieties of this economic life are transformed into a reflection on essentialized moral differences, which now have become so pronounced as to be naturalized into territories of moral difference. Interrogating this has revealed that the red and blue state rhetoric makes use of a number of moral panics, deflecting collective action (from both the right and left) into a supposition of moral dissimilarity. This illusion of moral dissimilarity is achieved in academic, media, and political prescriptions by means of a less-than "playful" civil war stylization of mapped conflict. The red and the blue are colorful overlays for the machination of America's capitalistic engine. The red and the blue are a political trope that promises a significant interpretive lens—but reveals little. The red and the blue markedly disguises economic debacles of capitalist governance within visibly politicized moral maps that supposedly reflect the "private" psychologies of citizens and their vulnerable families.

Endnotes

- WordIQ.com
- When blue states attack", Ann Coulter, December 25, 2003.
- These communities were observed on a road-trip through the farm country of central Illinois, on old Highway Route 66, during August 2004.
- 4 http://www.electoral-vote.com/
- Recent Google searches (September 4, 6, 8, 10) for "red state, blue state" found over 1, 000 News references. A general search revealed over 5,000,000 Google hits, although there is no way to prove the number of specific political references among these.
- Philip Klinkner. "Red and Blue Scare: The Continuing Diversity of the American Electoral Landscape." *The Forum: Journal of Applied Research in Contemporary Politics*.
- A recent visit to a local bookstore provided validation for this claim. Dozens of polemical, political texts have been written the right and left. They argue for change, for pleasure in being right, to vindicate an old bureaucratic grievance, and to avenge election losses. Most rely on the notion that America is divided between to intractable camps of thinking, morality, and values.

The moral panic is quite familiar to twentieth or twenty-first century American politics. And the seeming resurgence of specific religious values, which infuse the panics with a certain religious rectitude, is not something new, but rather a change of political appeals:

"This resurgence reflects the end of the New Deal, conceived as a secular welfare state as well as a regression to religious rhetorics and values of the 19th century. In secular terms, these rhetorics exhort patriotism and love of country, free enterprise, and free trade; they identify the public good with expansion of business and rely on the family as the moral foundation of society. In effect the secular themes can be seen as transvaluations of earlier Protestant conceptions of America as the redeemer nation whose righteousness was grounded in a morality of self-discipline, hard work, propriety, civic mindedness, asceticism, and the self-appointed mission to carry forth God's work on this earth. Implicit in this coentwined claim to righteousness is included a calling to judge the conduct of others in terms of this moral structure. Those who fully measure up to the standard of Protestant morality can be admitted into America's covenant with god. Those who do not measure up could not compete effectively in the open marketplace that classical liberalism enshrined with virtue; moreover they are excluded from the community of the elect and are unregenerate in the eyes of God and community. Under President Ronald Reagan these values now not only are linked to the sanctity of the traditional family, the deregulation of business and the dissolution of the 'welfare state', but also to military strength and preparedness, and are offered as the basic moral-political solution to problems in the late 20th century" (Vidich 4).

The basic moral-political solution of a quasi-secularized Protestant right (not just linked under Reagan's Republican administration) has formed new contours in the provocative maps that identify the red-right states and the blue-left states.

- Ironically, 'queer' was born in the effort to resist the discursive assimilation of 'gay and lesbian', to demand tolerance, if not outright recognition: "Tolerance makes a wedge for some flexibility in symbolic order organized according to prescribed, allowed, and forbidden practices. Forbidden practices threaten to display arbitrariness of the social real. But tolerance smoothes over the irruption of the forbidden, incorporating it as the 'allowable' by way of minoritizing discourse. In this sense, tolerance is crisis management in action. Full democracy, of course, entails more that giving under-represented groups their civil rights. It also requires eliminating the inequities between the haves and the have-nots that make tolerance of 'minorities' necessary' (Hennessy 218).
- "The radical has two ways of answering the question of why exploitation is wrong, neither of which seems all that appealing. You can go universal, and speak of what belongs to the dignity of humanity as a species; or you can go local, and see ideas of freedom and justice as springing from traditions which, despite being purely cultural and historical, nonetheless exert a compelling force over us. The problem with the first approach is that it seems to squeeze out history, whereas the problem with the second approach is that it seems to narrowly invested in it" (Eagleton 150).
- So, although left-wing critic and disturbingly reactionary scholar David Horowitz warns of queer theory being a "secular idolatry identical to that of the Communist apocalypse" [!], a real materialist or Marxist project is *not* the actual new-left identity project, which has tread in entirely the opposite direction. The identity project has constructed the social, intellectual space to conceive difference, alienation, and exploitation in playfully flexible, but not effective political formations.
- "A network of social relations that connect the secular and the Christian and that through the 'the Protestant ethic and the spirit of capitalism' connect the secular market with Christianity and with 'family values'. Thus, the right's investment in sexist, racist, or antihomosexual discourse is precisely as a crucial site to construct a whole series of social relations that fundamentally revolve around the relationship between what we might call economic values and those cultural or moral values that in right discourse carry the name 'family'. Specifically...'family values' mediates between the economy and the 'American' nation under contemporary market conditions by offering a discourse that can mediate between exploitation and domination. In other words, 'family' (rather than the state) mediates between economy and nation, and 'values' mediates between exploitation and domination" (Jakobsen 50).
- "Personal politics that displaces struggle from collective challenges to structural oppression and exploitation to the realm of intimacy" and especially when, as it seems, intimate encounters subsist as the decisive core of queer identities (*and* now straight, gay, lesbian, top-bottom, young-old, et. al.,) (Cloud 74).

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Gene Flow in an Invasive Species of Grass, Brachypodium Sylvaticum

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Abstract

Invasive species of plants are responsible for a staggering amount of damage to the landscape and floral and faunal communities. Invasions remain largely ignored until invasive populations have reached critical levels, at which point costly and time-consuming efforts are required for containment or control. Studying the early stages of an invasion can provide insight into the mechanics behind the establishment and spread of invaders, as well as shed more light on the processes of microevolution. *Brachypodium sylvaticum* is a grass recently invasive to the Willamette Valley, and possesses many traits valuable to a migration and evolutionary study. This study has focused on the aspects of the migration patterns of *B.sylvaticum* using microsatellite DNA. Microsatellite analysis of two loci determined that the populations studied were experiencing long-distance dispersal, in which large, well-established populations provide seeds to far-away sites; migration patterns of simple diffusion were also seen. In-field observations of this invasive grass suggest that this highly damaging invader enjoys the greatest success in disturbed areas such as logging tracts, riparian areas, and alongside roads. The long-distance migration of this genetic material appears to be propelled, at least in part, by logging trucks and tourists.

Introduction

Invasive Species and Noxious Weeds: Properties of Invasives and Consequences of Invasion

The official U.S. definition of an invasive species is "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." (Executive Order 13112) While only a small fraction of the total number of alien organisms introduced to the United States each year becomes invasive, the damage they cause is staggering. Estimates of the cost of controlling, preventing, and repairing the damage caused by invasives run from 100 to 300 billion dollars annually. Around one-third of the economic damage caused by invasives is the result of invading plants (Pimental et. al, 1999). Aside from monetary losses, invading organisms in the U.S. represent threats to many endangered species of flora and fauna.

By encroaching on habitat, utilizing available resources, and altering fire and hydrology regimes, invasive plants prove to be tough competition for the indigenous natives (Sakai, Allendorf et al. 2001; Rodosevich, Stubbs et al. 2003). Alien species may attain invasive status by possessing any one of a list of properties: a profound ability to colonize disturbed areas, a shorter germination time, earlier flower and seed production, faster modes of seed dispersal, or lack of predators in their new habitat (Rejmánek 1996; Goodwin 1999). Many of these characteristics enable an invasive plant to take advantage of high rates of colonization in disturbed areas, a trait that increasingly gives them an edge as humans manage land for agricultural and developmental resources (Harrod 2001; With 2002; Chornesky and Randall 2003). This tendency of many invasive plants to take advantage of an already distressed area, inhibiting natural or mechanical restoration, is one of the characteristics that make them so detrimental. In highly disturbed areas, such as in and around logging sites, along roads and in newly developed areas, it is often easy to spot invasive plants; even an inexperienced observer can easily point to the floral invaders of a system, as they will usually be the ones forming large monocultures, allowing little or no establishment of competitive natives.

The lack of biodiversity seen after an invasive takes hold affects ecosystems at many levels. Many types of animals and insects are specialists, unable to utilize a variety of plants for energy or habitation. In Hawaii, for example, many endemic species of birds have been threatened or exterminated due to the decrease in numbers of native tree populations; the trees themselves have been decimated by the invasive feral European boar, Sus scrofa, population (Stone 1989). Invasive plants may edge out the natives by using too much of one or a few resources, such as available water or soil nutrients. One invasive, saltcedar, actually lowers the water table in the Great Basin region, causing drought conditions that make it difficult or impossible for native willows to compete; this ability has consequences that extend beyond the boundaries of the saltcedar populations, affecting plants, aquatic and terrestrial animals outside of the saltcedar habitat as well as its immediate neighbors (D'Antonio 1992; Sala 1996). An area's fire regimes can be strongly impacted by changes in the floral community structure: Invading Bromus tectorum, or cheatgrass populations in the Great Basin have been determined to be the cause of an increase in regional wildfire frequencies from one every 50 to 100 years to one every 1 to 2 years. As the area's native shrubs are not fire tolerant, their populations are devastated with every fire, providing ample disturbed space for the cheatgrass to continue invading (Stewart and Hull 1949; Young and Allen 1997).

Much of the Pacific Northwest, with wet, mild seasons, provides an easy, comfortable environment for both flora and fauna. The geographic isolation supplied by the surrounding

mountain ranges may have granted the native species of the region protection from colonizing aliens, lowering the competitive abilities of natives and making them extra vulnerable to invasion. The European explorers began introducing many invasive species well before they began altering landscapes for agricultural uses (Harrod 2001). Early exploration expeditions proved that it takes only fleeting contact to launch a devastating invasion. Before Europeans landed, North America was uninhabited by, among other things, the common house mouse, black and brown rats, starlings, pigeons, some earthworms, and smallpox virus. All of these organisms have drastically altered northern landscapes and natural populations, from the native human populations, (in the well-known cases of smallpox pandemics), to the extreme change caused in the carbon cycle by the introduction and subsequent invasion of earthworms (Bohlen 1997).

Examining an Early Invasion: Management Regimes and Evolution

The destructiveness of invasive plants and animals, as well as the rapidity with which aliens may become invasive, makes prevention and/or early detection necessary for effective management. However, relatively little is known about the mechanisms leading up to invasion; usually, an invasive species goes ignored or undetected until it poses an serious problem—there has been as yet little opportunity to observe an invasion at its commencement. Information about the early stages of an invasion could prove invaluable to the development of management regimes. The rather rare occurrence of an alien species becoming invasive points to the existence of some event, or events, that makes invasion possible for these organisms. Describing these events can tell managers a great deal about regimes needed to control invasions, as well as which regions need to be more or less strictly policed and protected from aliens (Dietz, Fischer et al. 1999; Rejmánek 1999; Eckert, Massonnet et al. 2000; Mack, Simberloff et al. 2000; Rejmánek 2000; Sakai, Allendorf et al. 2001). The study of early invasions can tell us more than just how to control invasions; the events leading to the invasiveness of a species must have some genetic and evolutionary components, and the study of these rapid evolution events can lead to a more complete understanding of evolution in general. Some invasions may, in fact, be made possible by the development of a new species or Evolutionarily Significant Unit, an important event of which the study can provide many insights (Blossey and Notzold 1995; Lee 2002; Levin 2003).

There are a few possibilities for the events that make an invasion possible. Alien species may go through random mutation events that lead to some phenotype that allows them to spread rapidly through their environs (Maron, Vila et al. 2004). Invasive genotypes may evolve through

hybridization or long out-crossing with natives or other invasives (Daehler and Strong 1997; Ellstrand and Schierenbeck 2000; Bonnin, Ronfort et al. 2001; Pooler, Dix et al. 2002; Collin and Shykoff 2003; Petit, Bodenes et al. 2004). The arrival of relatively few alien immigrants may, through random chance, cause a founder event or events that confers on a native environment a high frequency of individuals that are already highly pre-adapted to that particular environment (Tsutsui, Suarez et al. 2000; Mack 2003; Parker, Rodriguez et al. 2003). Finally, the release from predators that an alien species can enjoy in their new environment may allow them to allocate available energy to reproduction and growth rather than defense mechanisms, giving the invaders an edge over their native counterparts that might not have existed before the opportunity for change presented itself (Herlihy and Eckert 2002; Wolfe 2002; Lee, Remfert et al. 2003; Mitchell and Power 2003; Maron, Vila et al. 2004).

After Establishment of an Invasive Species: Genetic Dispersal and Gene Flow

Once a plant has become established in an alien environment and develops or begins to exhibit the trait or traits necessary to spread and compete with natives, its mode of dispersal can provide information as to how to manage and contain the spread (Mack, Simberloff et al. 2000; Matlack 2002; Clark, Lewis et al. 2003; Filipe and Maule 2004). Simple diffusion, in which new generations progress outward from their source in a gradual expansion pattern, would require a mode of biological control different from "guerilla" dispersal, in which small populations far from the source are founded with genetic information from one or a few main source populations. The mode of dispersal can, to a large degree, be determined by the genetic diversity seen within populations and the differentiation between populations: If gene flow can be observed between two relatively isolated populations, conclusions can be drawn that long-distance seed (or pollen) dispersal is taking place, or that the populations share a common source (Nichols and Hewitt 1994; Cain, Milligan et al. 2000; Muller-Landau, Levin et al. 2003; Walker, Hulme et al. 2003; Paetkau, Slade et al. 2004). Genetic diversity can also provide clues as to how long populations have been established (the more diverse a population is, the older it is likely to be), as well as the relative ages of populations (more genetically diverse populations may be older than the less diverse ones) (Gautschi, Jacob et al. 2003; Telfer, Piertney et al. 2003).

Examining Genetic Diversity Using Microsatellites

Microsatellite analyses look at the actual lengths of specific fragments of DNA in order to determine genetic diversity. Microsatellites are short tandem repeating sequences of DNA. Microsatellites can be present in alternate forms, or alleles, distinguished from one another by variations in the length of repeating segments. Different individuals may possess different or identical alleles of microsatellites, just as individuals may possess different or identical alleles of other genes, such as those coding for hair or eye color. The microsatellites of *Brachypodium sylvaticum* were identified by Alisa Ramakrishnan (unpublished).

Because microsatellites do not code for any proteins, most are under no selective pressure and enjoy relatively high rates of mutation (around one mutation per fifty generations). This lack of selective pressure means that microsatellite alleles are passed to offspring without any limits or barriers; the movement and presence of microsatellite alleles can describe the gene flow among populations (Ouborg, Piquot et al. 1999; de Jong, Guthridge et al. 2003). Gene flow refers to the movement of genes, or alleles, from one population to another population; alleles are able to move with the migration of individuals or through the transport of gametes via wind, water, pollination, or some other means

An Invasive Grass in Oregon: Brachypodium sylvaticum

This project is part of a larger study, spearheaded by Alisa Ramakrishnan of Portland State University, examining the invasion of *Brachypodium sylvaticum* in Oregon. Native to North Africa and Eurasia, (Hitchcock 1969) *B. sylvaticum* is a newly invasive species of grass that has become noxious in the Willamette Valley region of Oregon, displacing typical understory (e.g. ferns, flowers, and native grasses,) in many areas of the invasion (Kaye 2001). My research is focusing on the gene flow of *B. sylvaticum* from the central, founding populations, to the populations located on the periphery of the region experiencing the invasion. From our results we can determine both how *B. sylvaticum* is dispersing, whether it is spreading through simple diffusion and/or "jumping" from one location to another via some vector; we may even be able to get an idea of which populations from which the genetic material is coming, depending on the microsatellite alleles found in populations. We can also get a general idea of how old, relative to the central populations, the peripheral populations are—based on the amount of genetic diversity found.

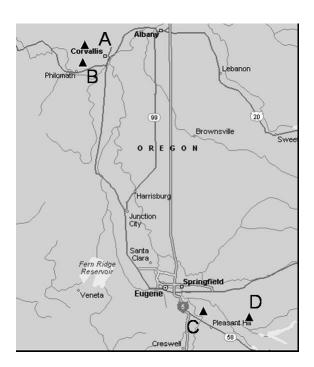
Materials and Methods

Experimental Design

For this study, 18 central populations will eventually be sampled. We hope to collect from five to ten peripheral sites; a few of the reported peripheral populations visited so far have yielded no specimens. From each site, 25 individuals are sampled, with two leaves taken from each individual. Because *B. sylvaticum* is a bunch grass, a minimum of five feet was maintained between sampled individuals to avoid resampling of the same or closely related plants. As yet, four central populations have been analyzed: two outside of Corvallis, and two outside of Eugene. The two analyzed populations outside of Eugene will be called populations A and B; those outside of Corvallis, C and D. The geographic locations of the four sampled populations are shown in Figure 1. The four populations were analyzed using two loci of microsatellites. (A locus is the position on a chromosome of a gene or other chromosome marker.)

Figure 1

Locations of Analyzed Brachypodium sylvaticum Populations



Molecular Analysis

Microsatellites, once identified, require the polymerase chain reaction, or PCR, to amplify enough fragments of the specific loci so that they can be analyzed and sorted by size. There are three main steps to PCR: First, the genomic DNA must be denatured, or broken apart into two single strands; second, primers anneal to the areas of specific genomic DNA to be amplified. (Primers are short sequences of DNA that give the DNA polymerase the starting point needed to initiate synthesis of DNA.) After the primers anneal to the loci being amplified, repeated cycles of hot and cold temperatures of the PCR enable the DNA polymerase to synthesize the microsatellite loci for which the primers are specific.

One of the microsatellite loci, 2-3A1, consisted of a trinucleotide repeating sequence; the other, 3-4E8, contained a tetranucleotide repeat. For the results discussed here, we will only use those obtained from locus 2-3A1, as the data obtained from 3-4E8 were incomplete. (We were not able to generate enough working fragment analyses to render our results statistically viable.) Mutations and variations at these loci result in varying lengths of the repeating sequences from one generation to the next. The primers used in amplification of the fragments were designed by Alisa Ramakrishnan. I used the primers to amplify only those areas of the extracted DNA that represent the microsatellite loci.

After the polymerase chain reaction was used to amplify the microsatellite loci, the fragments were analyzed for length, (amount of base-pairs found within the microsatellite fragments,) on an ABI 310 Genetic Analyzer. The alleles found in each population were compared in an analysis evaluating the similarity between populations; genetic distance between populations was calculated using the equation $d_{ij} = \sum_i (x_i - x_j)^2 / x_i + x_j$, where x is the allele frequency in population i or j.

Results

Field Observations

Due to time constraints limiting the amount of genetic data available, I would like to discuss a bit of the field observations that were made: First, *Brachypodium sylvaticum* appears able to outcompete nearly all competitors. The invasive Himalayan blackberry (*Rubus discolor*) seemed in most cases to inhibit growth of *B. sylvaticum*, except in places where the *B. sylvaticum* was extremely well-established: in forests with the largest *B. sylvaticum* populations, nothing was seen growing within the dense swaths of grass except trees.

Large numbers of *B. sylvaticum* populations were found in recently logged areas (within the last two decades); the largest populations were found near the site of original introduction, in MacDonald Research Forest, (located near population A as shown in Figure 1.) The immediate area is the site of current logging tracts, as well as many past logging ventures. I would hypothesize that further genetic analysis will reveal that even geographically isolated populations will be close genetically, in instances where both populations are located at or near recent logging sites. Populations of *B. sylvaticum* that exist near recent logging sites are shown in Figure 2. *Brachypodium sylvaticum* populations were also found in many areas frequented by tourists: Along the Rogue River Wilderness Trail in southern Oregon, at the summit of Cape Perpetua on the Oregon coast, at rest areas and campgrounds on Highways 58 and 126 east of Eugene, and in a state park near Redmond, Oregon. Populations of *B. sylvaticum* at sites frequented by tourists are shown in Figure 3.

Figure 2

Populations Near or At Logging Sites

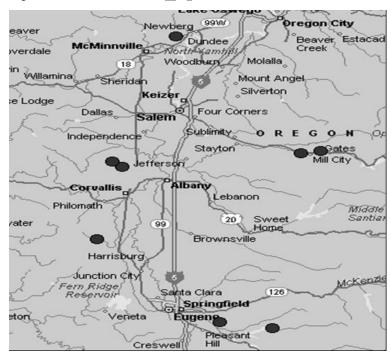
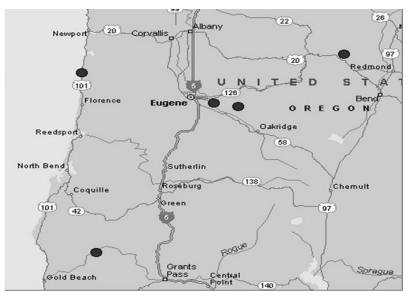


Figure 3

Populations at Areas Frequented By Tourists



Molecular Results

Though the study so far includes only four populations and one microsatellite locus, the results were intriguing: Genetic distances between the four populations, calculated using the aforementioned equation, between the four populations are represented in Table 1.

<u>Table 1</u>

Genetic Distances Between Populations for Microsatellite Locus 2-3A1

Populations	A	В	С
В	1.1388710	0	0
С	1.0128235	8.6764512	0
D	7.4321583	9.0525293	7.8121575

A value of zero indicates identical allele frequencies; higher values show the amount of relative genetic distance, or dissimilarity, between the populations. As is shown by the data, population D is very genetically different from the other three populations; A is similar to both populations B and C, but B and C are very different from each other: Population A contained alleles found in both B and C; however, population B had very few alleles also found in population C; population D possessed

alleles not found often in any of the other three populations. The geographic relationship of the four analyzed populations is shown in Figure 1. For the locus 3-4E8, the results of which were not included due to the lack of completely satisfactory data from population A, the genetic distances between populations B, C, and D resembled those seen in Table 1.

Discussion

The results of the genetic analysis indicate that both guerilla dispersal and simple diffusion are taking place: The relatedness of population A to both B and C suggests that population A served as the source of genetic material (via seeds) for both of these populations. Population A is (geographically) relatively close to populations B, illustrating simple diffusion of genetic material and certain individuals, while being geographically distant from population C. The large genetic distance between populations B and C implies that a bottleneck took place during the establishment of these populations; only a small number of alleles from population A made it to the new sites of establishment for B and C, and the alleles contained in the genetic material used to establish population B were different from those contained in the genetic material that established C. Due to the presence of genetic material not seen at the other sites, population D, near Eugene, was established from some different source.

The proximity of populations A and C to logging sites hints at seed dispersal via logging equipment, and may provide an explanation for why these two populations share genetic information. Population B was near a residential area, and would have less of an opportunity to "communicate" genetically with population C.

The establishment of *B. sylvaticum* at areas frequented by tourists suggests that tourists, their vehicles, clothes, and/or their hiking and camping equipment are acting as vectors for the dispersal of this aggressive invader. A few of these tourist spots, such as Cape Perpetua and the Rogue Wilderness Trail, are highly protected and are not located near any recent logging sites; a larger genetic analysis could show whether or not the populations located near tourist sites were experiencing gene flow mostly between one another, or whether genetic material was being passed regardless of populations' proximity to tourist sites. The same question could be asked in regard to gene flow among populations located near logging sites: If logging equipment is acting as a main vector, more gene flow should be seen between populations near logging tracts than between those populations and any others.

A more in-depth study of gene flow between populations is also required to illustrate with certainty the patterns of migration and dispersal of this grass. I will continue to work on the genetic aspect of this project with Alisa Ramakrishnan and Mitch Cruzan at Portland State University.

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Women Writing War and Peace in Post Vietnam Era

Amy Driscoll Faculty Mentors: Barbara Guetti

On a cool evening in May 1991, I sat on my front porch and contemplated my status as a wife running in a parallel universe to my husband. My husband was at the time, an enlisted sailor serving the U.S. Navy aboard a nuclear powered submarine operating off the coast of our homeport of Groton, Connecticut. My husband and I had been married just over a year. It had become apparent to me after a short time that the phrase "If the navy wanted the sailor to have a wife, we would have issued him one in his sea bag," was indeed not just a funny statement but in fact seemed to be the way life was expected to operate. I was an extra, an afterthought, someone not considered in the planning and strategy of my husband's existence as a sailor. It was this experience of knowing that the military did not consider me necessary to my husband's life and his happiness, which has fueled my scholarship for this project. I know what it is like to have lived next to the military machine and to have been ignored. My voice as woman, as a wife and as a partner, was not valued, heard, or acknowledged, but what about the voices of other women? Where are the voices of the wives whose husbands return from Lebanon injured or the partners of soldiers who never came home from the first Gulf War? The question for me on this project became how to acknowledge women's voices about their lives in the shadows of the military. I wanted to explore the stories of active duty women and their first combat service in the Gulf War. I wanted to find the stories of wives and mothers who wait, worry, and survive by their own devices. I wanted to chronicle and describe the stories of these remarkable women, to find a place for women to write war and have it participate in the shaping of the contextual view of American culture.

It is important for women to participate in this cacophony of topics that surround the American military experience; impossible to describe exactly how they should do it: what is or is not acceptable for women to write about, what ways of writing are allowed or banned. My research on the topic of women writing about war led me in two unexpected directions: first, the sheer amount and variety of material I found about women writing about war—in the twentieth century alone—

was astonishingly abundant and various: so much so that I found it difficult, and feel it would be premature at this stage, to classify what I discovered, or even less, to make prescriptions or judgments about what women's war-writing generically is, or ought to be, like. On the other hand, the trail gave out just at the point where my own personal experience of living next to war began, in our contemporary period which has been designated in several ways: post-Cold War; postcolonial, postmodern, post-feminist, global, multinational, and of course as usual, apocalyptic. The conditions of war specific to this period are still in the process of being named. But, just as American women's direct participation in these conditions —as military wives, or as active-duty soldiers—has increased with unprecedented rapidity, their silence about war, and about their part in it, is striking, and for me, deeply disturbing.

Women who are now living and acting within the contemporary conditions of war need to participate in the crucial process of naming it, and we as a society and culture need to have them do it. As I make this effort myself, I wonder where the other women have gone. The absence of women's voices in this most recent moment ruptures the continuity of the historical timeframe I seek to establish in the body of this paper. I cannot accept this contemporary silence as normal or inevitable. I cannot even accept it as silence: I feel impelled to interpret it, read meanings and implications into it, or yell into the void myself, even if it only gives back echoes.

When women give up the right to write about war in its multiple manifestations, or topics, it is the implication that this is all somehow distasteful, dirty and disagreeable that bothers me the most. The lack of any call for change, the lack of any cry of outrage, the missing first-hand published accounts, expressions of pain and suffering that allow others to contemplate what is not brought to them by their television screens also bother me. When women who are in the very midst of war do not seem to connect to it, will not talk to one another or to the rest of us about it, this pathological silence engenders equally pathological delusions of safety and security in Americans who do not know what the body looks like when the flesh is gone. I am troubled by the blank look on the faces of millions of patriotic American women who have been told they must support the troops to make them feel better about what it is they choose to do, if such silent choice is not in fact

surrendering to coercion. Women's real or assumed lack of passion about sending their sons and their daughters off to other people's lands, as obtrusive invaders or as displaced innocents horrifies me.

I hear myself speaking into the silence. Get Angry. Get Mad. Get frustrated at the lack of real information. Get loud. Get Raucous. Demand peace. Demand war. Demand that we fight. Demand that we speak. Demand that they listen. Demand they come home. Demand that no one else die for oil, power, lust, or greed. Demand that your voice be the one that writes the truth, and that the truth is published. Demand that the military let you fight next to the man who thinks you need protecting. Demand that your instinct to kill is as non-gendered as his is. Demand that no one touch your body without your permission and that if they do you will tell, you will yell and you will scream. Demand that your sexuality have nothing to do with your job performance. Demand that your job performance not be tied to how many children you have or how well you care for them. Demand that your ability and merit be the reasons you do or do not get, and keep a job. Scream that your voice is valid and necessary. Write, write and don't stop writing; let your words be your anthem; let your words be your patriotic duty to yourself, your children, your spouse, your military, your citizens, your country or anyone's country.

History, for the most part, has gendered war as male; as a male domain, a bastion that simply cannot be contemplated as concerning or affecting women. Women are seen as the victims standing silently by on the sidelines while their men write the stories of the horrors they have seen, the pain they have suffered, the damaging effects on their psyches. The images of war they offer us are of men battling, fighting, clashing, taking revenge and seeking recompense for wrongs thought and perceived. These stories imply that we, as women, have no real place in the clashes, no real vantage point from which to contemplate our own or their situation. We have no grounds in commenting because we cannot possibly comprehend what war looks like or how it feels to commit violence

against a fellow man and that man's wife, daughters and sons. What they forget is that we are always there, always standing behind them, next to them and in some cases in their stead.

Women have never been in the background when it comes to war; we have been trying to tell our stories for thousands of years. We want the world to know we ache when we lose our sons, we cry when our homes are gone and we get angry when our rights and our lives are stepped on and shoved to the background. Men's stories of war only represent a minority of the populations affected by war. Education, class and most importantly money, often privilege the men who write stories about war. These three things give them access to the ability to write, the time in which to write, and the innate sense that what they have to say is somehow more valued than those who "experience" war at their hands or while standing next to them.

Women have been interacting with military communities since war began, whether in support roles, clean-up roles or, lately in combat roles. Women have been the brutalized citizens left to starve, after armies have leveled their villages and killed their children. Women have been the observers and the participants; they have been the caregivers and the ones firing the guns. Women have never sat on the sidelines and not participated in war; women have never been left out. More often it is that their stories do not have the same value or the same qualities that those who control the strings of what we read, want them to have. Whatever specific qualities women's voices may have, these are the voices pushed to the back, left in the dust and forgotten over time, because history and the stories of its participants are written by winners and women are never ever winners when it comes to war. Women might have something to say about the dubiousness of victory, the hollowness of winning, beyond the kind of resigned irony that still perpetuates the same familiar military heroics that have lasted from Homer to Hemingway.

Women came to writing in World War I from many places that had been undiscovered to them previously. They began to write stories, letters, fictions, poetry, and history. They wrote personal accounts, and they filled in gaps with the workings of their imaginations for what they could not see, hear or feel. Some told each other it was wrong; some told each other it was right, but what they did for most women was to encourage them that their voices were worthy. Upper and middle class women came face to face with the horrors of men wounded and scarred through their work as VAD's (Voluntary Aid Detachment), or as FANY (First Aid Nursing Yeomanry), as ambulance drivers, support systems for clinics, and front line removal of injured and wounded soldiers. Working Class women left the home service finding work in munitions factories and wartime industrial shops. Women signed up for WAAC (Women's Army Auxiliary Corps) where they saw to the army's domestic responsibilities. Women took over their husband's shops, businesses, and public service jobs when their husbands enlisted. Women's lives changed in drastic and prodigious ways and most importantly, they wrote about their experiences. Their interactions with the military, the industry surrounding the military, or the home front provided them with ways and means to begin expressing their interactions and creating valuable cathartic material. Writing provided for all these women a way to deal with emotions that were new, overwhelming, not just for themselves but for society as well.

Professional women writers took over war as a subject in the months leading up to the violence. They provided social and political perspectives that spanned the range from propaganda for the English government by Mrs. Humphry Ward to the pacifist writings of E. Sylvia Pankhurst (Smith, 6). However, it was also an opportunity for women who had never written professionally to find their voices valued and publishable as well. The war had opened up professions by the thousands for women. Writing, while not always a profession, was an avenue for many women to explore their place in society. There were many kinds and types of writing by women that were the result of interactions with the military and the effects of the war on society. Just as experience in

wartime is not limited to one class or one gender, neither were women's writings about World War I.

Women do not own one experience of war. Men find comradeship and understanding in the shared experience of war. When a man writes of trenches and death, other men can imagine and feel the shared experience of battle. Women have no shared experience with the men who write war, so they must write what their experiences are and those are often what society finds value in. Claire Tylee states:

Women's literary responses to war, however, tend to be much wider and more subtle in scope than battle-tales, since they are interested in the social context of belligerence and its connection with personal relations and the quality of ordinary life. Women have always been sufferers in wartime, their peacetime way of life inevitably disrupted as they become nurses, widows, refugees, slaves. (13)

It is the suffering and the disruption that become the shared experience for women, and while not all stories are stories of suffering or ones that dwell within the suffering, all stories of war that women write represent a way of aching for the lost.

One of the women who wrote World War I was Mary Borden, an American woman who used her own money to set up a hospital on the French lines, where she worked as a nurse for the duration of the war (Smith, 327). In her book *The Forbidden Zone* published in 1929, she invites the reader to travel with her on her journey. It is a journey of horror and devastation. It is empty of life, or any of the qualities of life that exist outside of the scope of death and destruction. By inviting the reader to take the journey, she can recount what she sees without emotion, and as if pointing out the scenery on a travelogue, she can bring the reader along as a visitor to the horror. In her essay *Belgium*, she begins the travel log of war and in the process explains the toll wrought on Belgium:

Cities? None. Towns? No whole ones. Yes, there are half a dozen villages. But there is plenty of mud – mud with things lying in it, wheels, broken motors, parts of houses, graves. This is what is left of Belgium, Come, I'll Show you. (Smith 32)

In her essay entitled *Conspiracy* in *The Forbidden Zone*, she laments the toil of caring for the wounded soldiers just to see them eaten up again by the war machine. The reader is made to feel the despondency and pain, carefully compartmentalized and put away in a safe place. We know that her grief and utter disgust are there just lying under the surface of her words and yet we know that she has yet to fully realize her own significant pain. Her words allow the reader to share her frustration and yearn for an end to her pain.

It is all carefully arranged. Everything is arranged. It is arranged that men should be broken and that they should be mended. Just as you send your clothes to the laundry and mend them when they come back, so we send our men to the trenches and mend them when they come back again. You send your socks and your shirts again and again to the laundry, and you sew up the tears and clip the raveled edges again and again just as many times as they will stand it. And then you throw them away. And we send our men to the war again and again, just as long as they will stand it; just until they are dead, and then we throw them into the ground. (Smith 260)

We know her passion for caring for the wounded led her to the front to set up a hospital, but her passion for sharing her experience through writing has left us an account that 75 years later still rings true. The use of the language of the domestic front or the home allows us to see that what she seeks in tidiness is a return to civility and humanity. She is creating emotion by juxtaposing laundry with soldiers. We know they are more than that. We know their lives have more value than the socks we mend and by posing them as soldiers; we are left to ache for their uselessness and their nameless faceless bodies. We ask of our citizens/soldiers in war to be washed and mended; we just use them up until they are dead and then they are of use no longer.

Cecily Hamilton was a former actress whose vast experiences as an administrator in a French military hospital led her to become a writer of three war novels shortly after World War I (Smith, 328). William an Englishman, written in 1919, is a novel that tells the story of William Tully and his feminist wife Griselda, caught in Belgium at the outset of the war. Their experiences of war as civilians trapped in the uptake of events they have no chance to escape, highlights the moral dilemma of pacifist sentiments and war experienced on a personal level (Smith, 14).

If they had taken her away, she might be...anywhere! East or west, gone in any direction, and leaving no clue for her following. Anywhere in a blind incomprehensible world, where men killed men and might was right, and life, as he knew it from his childhood up, had ended in an orgy of devilry! (Smith 54)

These words written by a woman author are a man speaking about his fear that his wife has been taken away by soldiers. The words, however, are not gendered; they are not written with exclusivity of a male empathy. They are words that anyone searching for a loved one, today or yesterday, in a war environment would scream: "my life the one I knew, the one I loved, is gone."

Later when William finds Griselda, his anguish at discovering her rape and her soul wrenching pain bring into focus--that war is often the opportunity for individuals to inflict horror on one another without purpose or meaning.

For a moment he fought with the certainty, and then it came down on him like a storm: for once in his life imagination was vivid, and he saw with the eyes of his mind as clearly as with the eyes of his body. All the details, the animal details, her cries and her pitiful wrestlings; and the phrase 'licentious soldiery' personified in the face of the man who had been Griselda's gaoler. (Smith 55)

Hamilton's ability to write about a woman's sexual victimization at the hands of men from a man's perspective allows her to explore rape as a tool of war. The violation is just one in a long line of torturous events. It is the last stripping away of humanity for the woman at the center and for the man in her world. He is now as powerless and as wounded as if he himself had been the one raped and left in a heap. The rapist/solider has now destroyed two psyches, and victimized her entire family. The power of rape as a tool of war is one that is often not about sex or needs ungratified, but it is a tool of obliteration of will. We as readers know that William's suffering is only a part of what Griselda must feel, but we recognize that his anguish is different from hers. Hers, while both physical and mental may in time heal because as a woman she lives her life knowing that a man or any man can hold that power over her. William's grief will gnaw at his identity and his kinship with his fellow man. He knows that as a man, he can wield that power over other women and he knows the terror that can bring. Now he has experienced the powerlessness to protect the one he loves

from the horror and his inability to be able to make it better. He cannot seek out her torturer; her rapist is a nameless, faceless entity that is embodied in every soldier. He either shrinks in shame or picks up a weapon and fight, thereby further destroying Griselda by turning against her pacifist beliefs. He is as emasculated as if he himself had been penetrated. Hamilton's brilliant turn allows the reader to find that war has victims whose suffering is not gendered or sexualized but ugly and obliterating.

Helen Zenna Smith (Evadne Price) an English actress who became a journalist and popular children's writer in the 1920's, published *Not So Quiet...Stepdaughters of War*' in 1932. This was her response to Erich Maria Remarque's *All Quiet on the Western Front*, 1929, her answer to the never asked question of where were the women during the war. She wanted the world to know that war was cruel and traumatic for women as well. War was not just a felt experience; it was an owned experience for the women who worked the ambulances and hospitals of the front lines (Smith 68). Women have dreams, nightmares and horrors just as the men do.

He is clean and young and straight and far removed from the shadow procession I watch night after night, the procession that came to me early this morning and wakened me shrieking in the presence of a compartment full of shocked strangers. He is so gay, so full of life, this boy who is holding me closely in his arms... he could never join that ghostly parade... (Smith 141)

Price's strategy is to find a place for women to identify with men as equals. She wants women to feel and to act entitled to feelings of power. Because her character has experienced war and its horrors at the front, she is also entitled to have sexual feelings and needs similar to those of a man who is taking leave from the front. This woman is as pained and as needy as the soldier she holds. Her experience entitles her to the same relief and gratification. Price allows the reader to indulge and some may say excuse her character from the societal ramifications of her sexual behavior. She is not bad, or dirty, or a whore, she is simply acting in a way that we excuse and allow men to do. Her

character is using the identification of shared experience to become one of entitlement and freedom for her choices outside of the front-line experience.

There were also women who were publishing in an effort to stop the war, some like Catherine Marshall who felt unable to support the war at any level. She set up the International Women's Committee for the Permanent Peace and was active in the organization and running of the No Conscription Fellowship to provide help to conscientious objectors to avoid military service (Smith, 64). In her efforts to wage an active campaign against the war, she published *Women and War*, an essay included as part of the peace campaign in 1915.

Let us look steadfastly at war and the consequences of war, with our women's eyes—our mother's eyes—and tell the world what we see. Let us look honestly and courageously...shirking none of the pain and the horror, refusing to be blinded by glamour. (There is no glamour about wrecked homes of Belgium...) We must not shut our eyes to any of the wickedness of it; we must let the pity and the shame of it enter deep into our hearts and rouse a passionate determination that these things shall never be again. (Smith 112)

Different from Price's identification of women with men, Marshall seeks to find a separate space from men. She wants her readers to identify as "other," as women who could not find a shared experience of serving the war or its machine. Marshall feels the separateness of being an innate female was the need never to have war, never to identify with the battlefield. Rather it is to identify in a peaceful way: to find action through the shared experience of motherhood. As a mother, one is entitled to use one's voice to speak against the slaughter. It as if in finding a voice for peace she can no longer find a space for women to be in service. Women who bravely work the front lines do not find glamour in their actions, but they do find value in using their experience to comment on their entitlement to be there. Marshall's call for peace does not allow that space to exist, because for her, women and war only exist on one plane—that of horrified observer, not of brave participant.

Ongoing scholarship in the study of women's war writing allows us to read "non-literary" or "private" kinds of writing that would not have been deemed worthy of publication at the time they

were produced. Angela Smith's anthology includes letters, diaries and memoirs that give us insight and understanding about the vast and varied experiences of World War I. Mary Ann Brown's diary of her time spent as a nurse serving in Queen Alexandra's Imperial Military Nursing Reserve, gives a chilling account of women who were not supposed to be on the front lines and her proximity to the shelling during the evacuation of Gallipoli:

We were hard at it all day, had no time to pay attention to the fighting. The whole thing is too ghastly to write about...We had 640 bad cases on at midnight and we had to send away three boat loads that we had no room for...As I am writing this the shells are going whistling over our heads, they don't worry me, the noise of the guns so close worries me more. (Smith 257)

The letters of Emily Chitticks, also unpublished previously, are some of the only letters available that give us insight into the personal writing of a working-class woman. Smith suggests that while many working class women were literate by that time, perhaps because of the severe demands on their time, their ability to write was compromised. Emily's letters to her fiancé Will Martin are a touching and painful account of their separation due to the war. Her letters written to Will after his death were returned to her and the haunting ache present in her words attest to the loss women felt that has no bearing on class, society or position:

March 1917... Do you mean Will you have been fighting. Don't keep it from me dear if you have been in the trenches. Tell me, I would rather know. (Smith 131)

March 1917... My heart seems ready to burst with longing for you dear. What ever shall I do when you have to go right away. I really don't know. It will break my heart really Will. (Smith 131)

March 25 1917... Oh my dear boy I do pray that you will be spared, if I lost you well dear I don't know what I should do. I do hope I shall hear from you soon (Smith 131). From a returned letter Emily had sent to Will that reached him after his death on Tuesday March 27 on the front line. Emily never married. (Smith 132)

What is important to remember about the women writing World War I is that they were seeking to break out of authority structures and find a space for their voices to be heard as writers and commentators on their world. They were using writing as a medium that whether published or

unpublished sought a way to tell their story. Writing was for these women a means of self-identification that found its value in the act of expression, regardless of publication. Their ability to see themselves as people who had something to say—something that others could read and needed to hear—justifies including these women's voices in the stories we tell of war.

In her book *The Great War and Women's Consciousness*, Claire Tylee suggests that war is a state of hostility that takes place between human beings, and life is a place where such hostility exists. Excluding women as a group from writing about war makes it easier to allow hostility to be taken for granted and actively promoted. Women as a group would have to know and experience war. Women as a group are therefore entitled to write war and its consequences.

The idea that war is conceived or thought of as being an entirely masculine or male experience is one that by World War II had still not been shaken off. World War II was fought with the biggest armies the world had ever seen. Civilian deaths in the war surpassed military losses by the millions, in part due to technological advances that led to war being better organized and more targeted than ever before. Mass extermination by either Nazi death camps or American bombs in Hiroshima and Nagasaki had no gender-particular experience. Destruction took place on a scale that we like to think of today as incomprehensible. It is only in our imagination that we think destruction and genocide on a massive scale will never happen again. It is happening today in places like Rwanda and the Sudan. Women writing World War II have completely new things to say, but in our hearts, we know they are saying the same things women who write about war have always said; "this is our own atrocious doing."

As varied, diverse and complex pieces, the writings of women of World War II give us additional insight into the lives of women in war. Their actions, their thoughts, their hopes and dreams, their fears and pain are the human experience, not a male or female experience. Their writing styles, whether memoirs, poetry, fiction, first-hand accounts or journalism, give us insight

and understanding that cannot be found in the direct male experience of war on the front lines. The portrayal of suffering by survivors is a testament to those who perished unknown and forgotten.

Charlotte Delbo was a French woman involved in the Resistance, who was sent to Auschwitz in 1943 for producing anti-German leaflets. She is the author of numerous plays and essays as well as the *Auschwitz and After* trilogy: *None of Us Will Return* (1965), *Useless Knowledge* (1970) and *The Measure of Our Days* (1970) (Sheldon 355).

Her account of senseless horror in Weiter from Auschwitz and After is a plain, poignant account of life where you do not understand the rules and the rules do not apply to anyone but you. She gives the account of the killing of a woman in a work party of Polish women who assemble everyday to break rocks, pave roads, excavate sand, dig ditches and carry bricks. They begin their noon break; they down their soup. A guard shouts "Weiter" ("No Further") to a woman walking towards a stream with her tin cup in her hand. The woman stops, he continues to shout, she hesitates, he shouts again.

Standing with the marsh behind her, everything about her questions: "Is it allowed here?" "Weiter," shrieks the SS. Then the woman begins to walk, upstream. "Weiter." A shot. The woman crumples. The SS swings his gun back over his shoulder, calls his dog, walks toward the woman. Leaning over the body, he turns her over as one does game. The other SS laugh from their posts. She had gone beyond the limit by less than twenty steps. (Sheldon 223)

Delbo relates an experience particular in its horror, not particular in its gender or its victim. It is her ability to write this experience that gives us insight and grace to attempt to understand one face of war generations afterward.

Another survivor experience is Sara Nomberg-Przytyk's. Sara was a Hasidic Jew who fled to Eastern Poland after the German invasion and was deported in 1943 to the Stutthof concentration camp and then on to Auschwitz. She worked as a journalist in Poland after the war and wrote *Auschwitz: True Tales from a Grotesque Land* (Sheldon 357). Her story of the unthinkable numbness that overtakes one when death becomes ever present is humbling:

One evening, as I was returning form the infirmary to the barracks for the night, I bumped into a group of girls from the Leichenkomando, whose job it was to load the dead into trucks. One of them stood near a pile of corpses, the second near the truck, the third on a small stool, and the fourth on the platform of the truck. They were handing the dead to each other any old way: grabbing the corpse by the leg, or the arm, or the hair and then swinging it onto the platform. I noted their indifference to the dead and tried to imagine what kind of women they had been a few years ago, when they loved and were loved in a world of normality. Every few minutes I could hear a sound—the thump of falling flesh and the cries of the women: "Hurry up, Why are you dawdling?" (Sheldon 220)

It is her ability to imagine the humanity they once had in a time of great normality that allows us to understand her horror. Nomberg-Przytyk doesn't just give us an account of these women in their present condition but she allows us to imagine with her that humanity would be found again, that these women who hurry the dumping of the corpses may one day hurry their grandchildren down the steps into a garden or hold their loved ones close again in the future.

It is important to think about the ways in which the survivors' stories of the Holocaust provide a way to examine the experience other women have of the World War II experience. American women relegated to the kitchen after World War II lost their ability to use writing to explore their experiences on the home front. A large-scale effort is now under way to recover the oral histories of the "Rosie the Riveters," women who left their families and entered the workforce to support the war effort. Their stories were largely lost to us in the period after the war, in an effort to return to normalcy. Women lost the power to have their stories count in the mass rush to prop up and protect the men who returned. The Holocaust survivors' stories gave a voice to women who in other circumstances would not have been heard. They gave us the opportunity to begin to ask where the other stories we do not hear or see are.

Mary Lee Settle in her memoir *All The Brave Promises* gives an interesting account of a woman in the active duty arena, which was opened to many women in limited capacity for the first time officially during World War II. Her account of her time in England with the Woman's Auxiliary Air

Force is one of the first that allows us to examine the experience first hand for a woman in a new arena.

On the first day, while we were photographed like photographs in a jail, for our identity cards, we were given all-important serial numbers, at first on a clipboard pushed against our chins for the picture, then gradually tattooed on our brains. Old telephone numbers are gone, and addresses where I centered my life, but my serial number—2146391—and my rank—Aircraft Woman 2nd Class—are part of my identity, a scar that I will never lose. That identity, seeping through any former role, took over as the uniform began to set to my body, and the commands, the irresponsibility of being told every hour of the day what to do, became habit. Individual thought, another luxury, had to be buffed off. But that would be gradual, dangerous and unnoticed. (Sheldon 174)

Her memoir of this experience is still an example today of what the indoctrination into a military system presents for a woman. The loss of identity whether for men or women is, some would say, a necessary aspect of taking a job within a system that does not require individuals but rather requires order and symmetry in thought and action. It occurs that the indoctrination she recounts is one that could have been written by an Auschwitz survivor recalling a process of numbering and assimilation into a system that regarded them as numbers and not as names. What is it about systems of subservience and control that require participants to lose their identities and relate to the system by a number? The system that mechanically processes people can have no accounting for individuality or identity; it must wipe clean the markings we savor as personality. The system must treat people as pieces of material to be trained, transported, taken care of and eventually disposed of when no longer of use. At a time when many women were willing to find any way possible to help with the war effort, Settle's account of the avenues that were opening to women for the first time is a unique and remarkable memoir that still inspires questions about the military and the process of identity.

An interesting imaginative short story by Elizabeth Bowen, a well-known novelist who worked for the Ministry of Information in London during the war, is "Oh, Madam…", one of her wartime short stories in the collection *Demon Lover*, published in 1948 (Sheldon 353). This story is the one-sided monologue of a housekeeper who stays in her owner's house during the bombing

when everyone else has departed the bomb-damaged wreckage. This story may have been meant to show the pluck and determination of London's citizens in a time of stress and upheaval, but it also casts an interesting light on class issues that continue to occur during war. It is not a story of death, destruction, blood or pain, rather as Bowen said: "These are studies of climate, war-climate, and of the strange growths it raised. I see war (or should I say feel war) more as a territory than as a page of history" (Sheldon 130).

Well, I suppose we did, madam—that's if you come to think of it. They did seem to have quite set their hearts on us. I do not know how many went in the park. When it was not the bangs it was the hums...Well, I don't know, really—what could we do? As I say, all things come to an end. It would have sickened you, madam, to hear our glass going. Well, you've seen the front. No wonder you came in white. Then that ceiling down. I know I thought, 'Well, there does go the house!' Of course I ran up at once, but I couldn't do anything...The wardens were nice; they were very nice gentlemen. I don't know how they think of it all, I'm sure. (Sheldon 158)

This is a propaganda piece to some extent; but also something more. As a story commissioned by the English government in wartime, the piece seems to encourage the working class to hold fast, keep the faith and not question where the owner fled when the bombs dropped from the sky. At the same time, however, the story marks class distinction as an issue that isn't overcome in wartime. Bowen makes this point by writing from the housekeeper's perspective. The owner of the home who is being addressed never answers so that we hear her. Her unheard answers and the conversation's one-sidedness allow us as readers to explore only the thoughts of the housekeeper and distance us from identifying with the owner, or make that position uncomfortable. We as readers identify with the fear and panic the housekeeper must have been living through; alone huddled in a basement, trying to stay alive and at the same time trying to protect and keep safe her home that in reality is not her home at all. Bowen crafts a piece that on first glance seems an interesting piece of war writing; it could even be mistaken by the unwary as an illustration of class unity in wartime. On careful consideration, however, it works out complex levels of class, layered with hostility, resentment, fear and anger.

While we may tend to think of women in service during the war in munitions factories, civil service jobs or taking care of the domestic front, one of the amazing stories of World War II is the experience of Martha Gellhorn. A journalist who was a war correspondent for nearly fifty years, she traveled the globe looking for the next story to tell. Her stories were hard-hitting news pieces written for *Colliers* magazine. She traveled the front lines as what we now might call an embedded reporter and at times found her own way through the backside of the front lines with no help but her own determination.

Martha Gellhorn said in her book *The Face of War*, "These articles are in no way adequate descriptions of the indescribable misery of war. War is always worse than I knew how to say—always" (86). Her reports from the front lines gave us accounts of the

Bomber boys' struggle to contemplate and comprehend their destructive bombing runs over Germany in November 1943.

They have their job to do and they take this sort of life as it comes and do not think too much about it or about anything. There is only one clear universal thought and that is: finish it. Win the war and get it over with. There's been enough; there's been too much. The thing to do is win now soon, as fast as possible. (92)

She also reported on the Battle of the Bulge in January of 1945, the German counteroffensive that drove through Luxembourg and Belgium and was being driven back. It is her account of what "containing a fluid situation in Kraut-killing country looks like" (145), she states:

You can say the words 'death and destruction' and they don't mean anything. But they are awful words when you are looking at what they mean. There were some German staff cars along the side of the road: they had not merely been hit by machine-gun bullets, they had been mashed into the ground. There were half-tracks and tanks literally wrenched apart, and a gun position directly hit by bombs. All around these lacerated or flattened objects of steel there was the usual riffraff: papers, tin cans, cartridge belts, helmets, an odd shoe, clothing. There were also ignored and completely inhuman, the hard-frozen corpses of Germans. Then there was a clump of houses, burned and gutted, with only a few walls standing, and around them the enormous bloated bodies of cattle. (146)

Her account of the destruction is a striking account of her presence as a member of the press reporting on the front line. Was she one of the only women purposefully pursuing the story? Yes.

Her account of war must then be included in our contextual exploration of women writing war as a human experience of hostility.

One of Gellhorn's most moving and perhaps grotesque pieces was a story of her time spent at Dachau in May of 1945 shortly after the American forces had liberated the camp. Her words transmit to the reader the strange quality of voyeurism of the prisoners' lives: we feel as if we have been let in on a dirty little secret that some would prefer had stayed hidden. She tells of a Polish doctor held for five years who leads her around the camp as her tour guide on a trip of death. He tells her of a German doctor who was chief of the Army's tropical medicine research, who used Dachau as an experimental station. He mentions several experiments that thousands suffer through but the worst was this:

The guinea pigs were Polish priests. (Over two thousand priests passed through Dachau; one thousand are alive.) The German doctors injected streptococci germs in the upper leg of prisoners, between the muscle and the bone. An extensive abscess formed, accompanied by fever and extreme pain. The Polish doctor knew of more than one hundred cases treated this way; there may have been more. He had a record of 31 deaths, but it took usually from two to three months of ceaseless pain before the patient died and all of them died after several operations performed during the last few days of their life. The operations were further experiments to see if a dying man could be saved; but the answer was that he could not. (182)

Martha Gellhorn wrote her book in 1959 and updated it in 1988, but her original comment about the war writing that she had spent her lifetime doing, was that this book was a way to make the world leaders accountable for the human beings they lead:

But we need not follow in silence... I will not be herded any farther along this imbecile road to nothingness without raising my voice in protest. My NO will be effective as one cricket chirp. My NO is this book. (4)

For Martha Gellhorn writing was the way in which she answered the question of what it is possible for human beings to do to each other in the name of hostility. Writing was a way to keep the record straight, not letting the winners tell the story they wanted us to hear, but writing was also a way to scream at the top of her lungs that the answer can never be further hostility.

By the end of World War II, women were writing in many arenas, in many styles and emphases. What wasn't happening, however, was a lasting acknowledgement by the establishment that women's writing about war and its impact had its own way of contributing to the total picture of what war looks like. Similar to what took place after World War I, the story of the war told by historians is a crafted picture that shuffles women to the domestic side, ignores their contributions, and places their tales of survival second to story of massive campaigns, war heroes, and the might of the right. Women's stories of and about World War II and their experiences are just now being sought and anthologized in scholarship of the kind that has been done on World War I. As people moved beyond the war and began to experience life through an uptake of consumerism, new mediums began to develop that pushed the experience of war away from writing and into a visual mode through the television screen. The Korean War (1950-1953) was for many Americans a remote and distant experience. Men who were largely veterans of World War II left their families behind and went to the front, and American women were removed from the conflict and the remoteness was evident in the absence of writing of women experiencing war. Korean women and their stories are largely unavailable to an American audience and scholarship at this time.

The Vietnam War (1965-1978) was a conflict that was never declared a war, even though, for the people involved, whether American, Vietnamese or French, it was a war. If we use Claire Tylee's description of war as a state of hostility between human beings, there can be no question that war was taking place on a very large scale. Women who wrote the Vietnam War experience were, for the most part, women who served in the field as civilian and active duty nurses, as well as those left behind on the home front; wives, mothers, daughters and girlfriends.

Martha Gellhorn was still actively writing as a journalist/war correspondent, but the stories she wrote portraying the brutal effects of war on the Vietnamese people were not getting published. She struggled to find an avenue to join other voices of dissent and bear witness to the truth of war's

effects on the people of Vietnam. She reported for the *Guardian*, a magazine based out of London. She said, in retrospect: "I wanted to be read, to be heard, and I knew I had to write carefully. There are smarmy sentences in those reports that I wrote with gritted teeth" (Gellhorn 262). For many authors, writing about war seems to be compartmentalized, in an effort to describe or delineate the undescribable, often seen as detached situation, circumstance or event. It is seldom about the entirety of war: we are seldom offered a broad scope picture of what war is and what it does. Writing about war seems to be less about the horrors or atrocities that are possible to describe, than it is about what people already expect to hear or are willing to publish. Writing has to work on readers by offering something they either did not know, did not want to know or knew and needed to be reminded of. Perhaps the reason Martha Gellhorn and women like her had trouble getting their pieces published was that people did not want to know, and they did not want women to be the ones to tell them, and for that reason even a popular, established journalist like Gellhorn had trouble publishing this kind of work.

Other women working actively to find a voice for their concerns, truths and experiences struggled to find avenues to tell their stories as well. The gap between writing and experience seems to be at its widest when we consider Vietnam. Patricia Walsh, who wrote *Forever Sad the Hearts*, an autobiographical novel based on her time spent as a nurse anesthetist in Vietnam, was not published until the mid 1980s. Her account of her time spent in a Da Nang civilian hospital, focuses not just on her youthful idealistic ambitions and the crashing reality that was Vietnam, but also bears witness to the horrors of patching up wounded soldiers who would never lead normal lives again (Carter 158).

There seemed to be numbers and labels for everyone—K.I.A's, M.I.A's, wounded in action, enemy killed. But this war needs a new category, a name for those who could be saved by rapid evacuation and modern technology but could never return to a normal life. The ones who would spend the rest of their days lying in deteriorating Veterans' Hospitals, hidden away in dark corners because of their grotesqueness, or sent home to hide within the shelter

of their families from a society that did not wish to be reminded of this unpopular war. They were the Vietnam M.I.L's Missing in Life. (Walsh, 119)

Her story transmits not just the horror but the helplessness one would feel saving those injured, only to have them live lives of despair and shame. War does shameful things to those we ask to fight, and nowhere quite like Vietnam was the shame so apparent to the men who fought. Walsh's story portrays what it is like for a woman to serve in roles that society prescribes as appropriate when dealing with war—as a caretaker, a supportive, caring and feeling healer of the wounded. Walsh's story is rife with anger and resentment at being asked to do such things with idealism and pride and being forced to share its ugliness and shame.

Barthy Byrd wrote about the Vietnam War. She was never there, never had a loved one there and she was not a survivor, but as a woman, she felt entitled to write about Vietnam. She felt that the context of the Vietnam War was often one that had lost the voices of women who might be seeking to tell their stories. At the time she wrote her book in 1986, she was a professor of journalism and mass communications at University of Texas at El Paso. She spent twelve years in broadcast news as a reporter, anchor and news director. I am sure she covered war and felt its consequences as much as anyone who lived in the United States of America did in the 1960s and 1970s. Her context for writing is to tell other women's experiences, to highlight their stories as worthy and valid in the context of the Vietnam War. She says, "there are thousands more victims to whom little attention is paid. They did none of the planning, none of the fighting, none of the killing. But they, too, have paid for the wreckage brought home and the wreckage left behind" (Byrd 1). She covers the oral histories of nine women whose lives were impacted in some way by their contact with the military community and Vietnam.

There is the story of Whitney Brown, the daughter of a colonel in the Air Force, who spends her teenage years on Guam where her father worked for the Strategic Air Command and her mother volunteered in hospitals to nurse the injured (Byrd 5). Her story relates the pain she witnessed seeing

young men barely older than her come to Guam maimed and disfigured. It is a story about what it is to be young and innocent, in the face of the gruesome results of war.

There is also the story of Ellen Dale, the mother of Jack Dale, an M.I.A./ P.O.W presumed dead in Vietnam since 1965. Her story begins as one of pride in a son who volunteered to do his duty and learned to fly planes. Within three months of being in country, his plane went missing. It is her story of aching loss and betrayal by the Army who was supposed to help her and save her son. She waits for four years for information from the Army and it never comes, so she joins the National League of Families of P.O.W's and M.I.A's and seeks answers about her son wherever she can find them. She holds a memorial service for her son, but she says, "You can't kill your own son in your mind. I can never stop thinking, My God if he's alive, what must he be going through?" (Byrd 16). She calls herself a loyal American but feels betrayed by the government's lack of action. She says, "I'll take my grandson to Canada before I let him go to another Vietnam. They even think of sending my grandson to a place like El Salvador and we'll leave" (Byrd 16).

Barthy Byrd also writes the oral history of Le Ngoc Thanh, a Vietnamese woman born in 1957 in Dalat, a vacation village in the mountains. Her father was a military officer in the South Vietnamese Army who was away from their village for long periods of time. She felt her life was relatively untouched by the conflict in her country until 1975 when her father sent for her family to make their way to Saigon. In the story, her family decides to stay in Vietnam when the country falls to the North. Her father volunteers to go to a re-education camp for what he believes will be three months but in fact turns out to be seven years. Her family returns to Dalat but their futures are in doubt. Because of her father's military career, they are now suspect, kept away from jobs and education. Her mother attempts to help Le Ngoc escape but Le Ngoc is caught in the process and sent to prison for a month until her mother is able to bribe someone to free her. By 1977, her mother realizes that she must send all of her children away and works out an elaborate escape plan,

which enables all of her children to safely make their way to Thailand, onto Malaysia and eventually the United States by 1979. Le Ngoc did not hear from her mother until 1983. Her father was eventually released and returned to Dalat. She cannot send money or goods to her parents, she rarely hears from them and she prays to once again, reunite with her parents (Byrd 23).

These are just three of the nine moving and emotion-filled stories included in Byrd's *Home Front: Women and Vietnam*. They are just nine of thousands of oral histories of women who experienced interacting with the military and Vietnam. Byrd's writing of these histories allows us to experience women's stories that may have otherwise gone unheard. Her ability to write the Vietnam experience of women who loved and lost sons, husbands and fathers while balancing that grief and pain with the stories of women who experienced Vietnam differently, is a powerful way of resisting the silence that women feel about their stories. Her writing gave a voice to all of the women's whose histories she imagined in her book. Like the multiple echo of Martha Gellhorn, it is their "No" screamed out to the world so that their sacrifices will not go unappreciated and cannot be swept under the rug.

Other women fiction writers have begun to use the Vietnam War as a way to explore its ramifications on those left behind, and their experiences with those who return. Louise Erdrich wrote a short story in 1973, A Bridge, a twin tale of a young runaway girl, Albertine, and Henry, a young Native American soldier just returned from Vietnam. Henry has returned after spending fifteen months in country: nine as a soldier and six as a prisoner of war of the North Vietnamese Army. Erdrich never tells us that Henry is a damaged soul but we know he cannot be otherwise. She gently steps around his torments letting the reader sense them just beneath Henry's careful taut exterior.

He had seen so many with their children, possessions, animals tied in cloths across their backs, under their breasts, bundles dragged in frail carts. He had seen them bolting under fire, arms wrapped around small packages. Some of the packages, loosely held the way hers was, exploded. (Erdrich 171)

Erdrich is striving to incorporate the male experience of Vietnam with a world that is now foreign to Henry. He returns to find the world he knows has not changed by the effects of bombs and guns, but it is Henry who has done the changing. Erdrich as a female author is working to identify how disembodying the world must seem to those who return home from war, to a place that at least appears unchanged. I think Erdrich is working in much the same way that Pat Barker does in her Regeneration novels about World War I soldiers. They are both trying to find a way to express the effects that war has on the individual psyche, and society's psyche as well. They both ask a rhetorical question about how we—meaning those who live in a place removed from the front lines—attempt to understand or avoid understanding the effects that battle and killing have on the mechanisms of human relations. Claiming this territory for women authors, as their space in which to write, they allow us—the outsiders or those left behind—to find a way to empathize with the soldiers as individuals who struggle with the jobs they have been drafted or volunteered to do. We are given a gift by these women that opens the door to accepting the individual while grieving for the consequences of war, great and small.

Vietnam as a war represented so many things; shame, anger, place, country, whatever is close-but-distant, frustration, pity and turmoil. In the process of crossing from event to context, the war became a symbol for generations of hurt, damaged, broken, men: an inclusive, many-faceted event that women could now begin to explore as symbol, figure and reality. Women could talk about violence committed by men on them because the men were somehow damaged by the war. Women could explore war in a way that would open up relevant discussions about the experience without actually having to have been on the field pulling a trigger.

Women explored the Vietnam War -its context, its history and its power as an imaginative force in many other ways. They have written poetry, plays, stories of grief and stories of triumph.

All these modes have been valid explorations of the military experience and its community of

contextual layers. Military communities are not just those that are the active duty solider or sailor, their spouses or their children. War expands the military community to those outside of the insular institutions of military experience. War is the bridge that allows us to understand that when women write stories or literature in response to, in fear of, about, near or in spite of (war), we all are a part of a military community. Whether we ask for a defense of our borders and policies, by draft, as was carried out in this country until 1973, or by an all-volunteer military, we partake of and are layered within a military community. If war is state of hostility between human beings, the militarized state is therefore a constant condition of life that portrays hostility to the rest of the world. Claire Tylee in her book makes the point that people live their lives by ordering the way they fit into society: how well people fit will manifest how they see the world, which will be apparent in what they write. Conflict and hostility are that, and what both men and women do write is what war is, but what cannot continue is the idea that experience is gendered to be a wholly male existence or experience. Women are part of the context in which war takes place. It often takes women's writing to establish that context, to make it evident that war is not just something happening "Over There," as the words of a well-known World War I song would have it.

What has been a most interesting aspect of this scholarly effort to identify women as belonging to military communities writing war and peace, was that the original intention was to explore the writings of women in the post-Vietnam-era against the backdrop of a rich, diverse, though uncelebrated community of women who came before them. What became clear after much exploration and searching of the literature for what I was almost certain existed about military communities and war from the mid 80s to the first Persian Gulf War was that stories by women were not being written. Women are no longer writing in a current contextual way about the military, a militarized existence, war, peace, survivors' stories of military experiences or fictional accounts of war. Perhaps what look like opportunities are in fact obstacles, at least where writing is

concerned. As avenues for women to become more richly enmeshed within military circles, women serve on active duty in combat zones in new capacities, with new responsibilities; these women have not used writing as a way to reveal themselves. Women who are interacting with the military community as wives of soldiers and sailors aren't writing their stories of loss (and there have been losses). Women who have served in the front lines as humanitarian aid workers seeing the results that a militarized existence wreaks are not writing their stories of suffering and trauma. Women who have been embedded as reporters aren't writing the stories Martha Gellhorn would demand they write: the truth. Where are the women? Where have they gone? Why do they no longer feel they have access to this realm of conflict and their place in the context of that existence? We can't say they don't have a rich and complex historical record of women writing their stories, for we have just seen they do. I believe there are several reasons why and several factors to consider.

To begin to look for answers, we must look at ourselves as women and ask what value we place on telling our stories to each other about ourselves. In an effort to examine women's issues of self-perception in a tight military community, Margaret Harrell, an anthropology analyst for the Rand corporation, conducted interviews with over 100 junior enlisted Army wives. Her book *Invisible Women: Junior Enlisted Army Wives* provides a detailed look at stereotypes regarding the lives of these women. This group of wives is considered to be:

young, immature, lower class spouses who are in financial difficulty and who have difficulty controlling their reproductive tendencies. This is a stereotype widely held by the military community at large, including other junior enlisted personnel and spouses who speak disparagingly of their cohorts. (Harrell 12)

Harrell's study was an attempt to examine whether these women's stories about themselves matched the common stereotype. She found that while they might in some aspects of their lives embody the stereotype, their self-evaluation as "invisible" was particularly striking. They felt invisible from the military system; as wives of active duty soldiers, they felt large separations between the wife's private life and the husband's professional life. They were often isolated off the base away

from the housing available for families, post services and support mechanisms. They felt isolated as wives from other wives by virtue of their husbands' profession, with no fraternization policies in place between officer and enlisted personnel. This policy frequently applies to the wives as well. Wives are encouraged to make friends and develop support systems of fellow wives, but only as long as they are of the same rank group. An officer's wife should socialize with other officers' wives. A senior enlisted man's wife should socialize with senior enlisted wives (Non-Commissioned Officers). Junior enlisted wives are encouraged to seek and develop friendships among each other as well. This is a way of protecting active duty personnel from developing relationships outside of the workplace. It is an effort to limit conflicts amongst the active duty members that may arise out of giving and receiving orders under the military command structure. It hampers not just positive mentoring and friendships from developing among the active duty members, but it also isolates the wives from those with the most experience dealing with the military and its huge bureaucracy, the wives who have been around the longest.

The wives also felt isolated financially and many of those interviewed were actively taking part in welfare programs (food stamps or W.I.C. -Women, Infants and Children). This was not necessarily because of their inability to manage their money, but rather because the level of pay for many junior enlisted personnel is in fact quite low. For young people with few skills taught or learned about how to make a small paycheck go farther, they often carry large loads of debt, sometimes a result of moves to several locations at the request of the military; sometimes a result of impulse-buying. Whatever the reason, they struggle financially, and many of them "qualify" for Food Stamps and Welfare programs. Many of the spouses were unable to afford adequate daycare, if they had children. With no extended family networks in place (grandparents, mothers, aunts) because they lived with the military member far from their home state, they must rely on friends or

other wives to provide the necessary daycare. This often affects a wife's ability to work outside the home, thereby further isolating her from the civilian community.

If as Ms. Harrell's study indicates, these working-class women were taking on a feeling of invisibility from the military system of power that has the most immediate effect on their daily lives, then it would follow that their self-identification when it comes to writing their experiences (good or bad) would be nonexistent. They would take on the stereotype of the lower-class identity and find no value in expressing and recording their experiences. Silence, isolation, and invisibility are interrelated. The words carry meanings that invoke shame, contempt, and disengagement. If this group of women is speaking of their invisibility as a status of living in a world that cannot see them and in which they cannot be seen, it is a powerful statement about the world in which these women exist. Their existence is covered in meanings that breed the emotions that perpetuate the silence. Their choice to remain silent postpones and worsens the dilemma they and other women find themselves dealing with everyday of their lives. The silence freezes them in contradictions that become less and less bearable. Silence is a symptom that something is wrong. Silence and invisibility are not a natural or inevitable existence.

If enlisted wives are not writing, what about stereotypically college-educated officers' wives? This stereotype would seem to privilege them in a way that would allow them to think they could write or could find a way to write a story that would have value. In a historical note: General William T. Sherman (1870) encouraged wives of his officers to keep their own diaries to record their experiences (Crossley and Keller xxxiii). Most of the surviving historical material about nineteenth century military wives is letters, diaries and memoirs of officers' wives (Harrell 71). They have a tradition then that would encourage writing as a way of recording their direct contact with the military experience and yet they too have stopped writing. If we examine writing as a class-based

exercise for this community, it would seem that identification with a privileged group is by no means a contributing factor that at this time encourages these women to write.

It would also be helpful to think of the role of a military spouse regardless of her husbands' status as officer or enlisted. Her role and identity within a relationship is what I like to think of as more than "half' of the whole. In a relationship within the civilian world, women may tend to think of themselves in a marriage as equal partners. Couples have a balanced relationship whereby two spouses support each other in their endeavors as a married couple. In a relationship for married couples within the military, that role of equality is skewed. A wife for instance may find her husband to be extremely supportive and helpful when he is home, but when the time comes for deployment into the field, the wife is left to her own devices. If she is a parent, she will now become both mother and father for her child. She will have no one to balance against, much as a single parent might operate in the civilian world. As well, the wife will have to take over any responsibilities the husband may have handled while at home. She is now the sole caretaker of the home, finances, health-care decisions, cars and maintenance. While deployments can vary by service, a Navy wife for example can expect to be alone, in peacetime, up to six months for one deployment, or longer with combined deployments, managing as a single parent or wife while still maintaining a married identity. The Air Force usually has the least amount of deployments into the field, while the Marines and the Army can have anywhere from a month to two months in the field for training and exercises several times a year. This of course is during peace; in recent years, from the early 90s forward, our troops have been deployed for long periods in service in Kuwait, Saudi Arabia, Somalia, Panama, Grenada, Iraq, Korea, Afghanistan and many other places around the world.

A wife then who in most cases was already managing family, work, and home, with a military spouse is expected to carry more than half of the responsibilities, while the husband was deployed. In this instance, the question becomes, if her role as a support mechanism for her family

requires more than "half", would she have the time to consider writing as a means to expressing her situation. She would constantly be in service to her household as wife and mother while sheltering all of the responsibilities for the family on her shoulders alone. She has no one to help provide the mental and physical space and time required to write. She must constantly be a source of power and strength to her family, and at the same time carve out a mental space that gets her through each day.

One of the types of writing that women who are military wives have been doing in the last several years has been to publish what I call self-help books. Lydia Sloan Cline has written Today's Military Wife: Meeting the Challenges of Service Life, 1989, with chapters about military benefits, socials and protocol, or "home is where the military sends you." This is a book that "is designed to help you make the most of your life in the military, whether your spouse is a career military member or in for just a few years" (Cline 19). Another book is Married to the Military, by Meredith Leyva, a selfdescribed guide "to help you take control at every point of your serviceman's career" (Leyva). Another example of this type of writing is *The Army Wife Handbook*, by Ann Crossley and Carol A. Keller originally published in 1990 with a second edition published in 1993. It claims that it is a "social handbook – a reference book that describes not only the currently correct protocol and etiquette practiced in Army society, but explains the traditions that are in transition" (Crossley and Keller xviii). All of these books are self-described ways to encourage military wives to work within the system, in effect encouraging them to be good wives and find acceptable ways of behaving and presenting themselves to the world. While I find they have a place for a wife who may need to find access to information that is unavailable in other ways, they do not encourage independent thought. Lydia Sloan Cline states in her book:

The women who sincerely try to "bloom where they're planted" are the ones happiest in their environments. They are the ones who learn the most, see the most and know the most. They make the system work for them. The wife who refuses...who otherwise distances herself from the military community does herself a disservice. (Cline 19)

In other words, find ways to work within the system and the system will work for you. It is a nod to the consumer culture that we live in, that these books are entrepreneurial efforts to silence and codify, what is and is not acceptable behavior. The only story that has capital then is the story about fitting in and finding acceptance. Stories of struggle about breaking new barriers and striving for new ground while challenging the status quo have no place in this market of complacency.

This type of writing appears similar to the propaganda machine of World War I. Mrs. Humphry Ward was a signatory of C.F.G. Masterman's "Author's Manifesto" in which several leading authors pledged to support the war through their writing. Masterman was the head of the War Propaganda Bureau; he enlisted literary figures to help with the production of propaganda materials. Mrs. Humphry Ward's book *England's Effort*, 1916, was in the form of several letters to Theodore Roosevelt, designed to show the war to the American people (Smith 6). Like the wives of today's military who are writing only of how they can encourage each other to work within the system, Mrs. Ward's book encourages a vision of war and the military that is complacent and homogeneous.

Another way to examine the avenues women might have to writing military communities would be to look at women who are on active duty and examine the ways in which they have either written or not written their stories. According to a 2002 report published by the Military Family Resource Center in conjunction with the Department of Defense, there are 210,177 women on active duty. Those women make up 15% of the active duty force as compared to 46.6% of the civilian United States workforce that is female. There are 642,474 women who are spouses of active duty military members. That means there are over 852,651 women as of 2002 who are currently making up the two communities of women interacting with the military, one domestic and the other active duty. Of the 210,000 women who are currently on active duty and the thousands who have passed before them, we have to ask, where are their stories?

Patricia Thomas and Marie Thomas write in *The Military Family in Peace and War* about women and mothers in uniform during the Gulf War. They quote from Pentagon sources that 541,000 troops served in that war and 35,000 of them were women. Sixteen thousand three hundred (16,300) of those troops were single parents, one-third of who were women. One thousand two hundred (1,200) women were members of dual military couples serving with both partners in the war (Thomas 37). All of these women would have faced conflict over their service in the military in a time of hostility. They faced conflict on a personal, social and cultural level. Women with children who served in the war were portrayed in the press and media reports to be bad mothers who abandoned their children to family members to run off and play war (Thomas 36). They served in new capacities for the first time, flying jets and riding in Search and Rescue helicopters. They bunked with male colleagues in limited conditions that were, while not on the front line, certainly in the military theater. They underwent daily threats of S.C.U.D. missile attacks and chemical weapons. They saw the wounded in hospitals and clinics that followed the troops. They treated Iraqi prisoners and helped Kuwaiti citizens.

From August 7, 1990 when troops first began to deploy to Saudi Arabia for Operation Desert Shield, through Operation Desert Storm from January 16, 1991 to April 6, 1991, including the return of troops and the continued enforcement of the no-fly zone over Iraq, women served. They were there; they were witnesses; why are their stories somehow the least visible aspect of what we know about this war? Rhonda Cornum's story, written by Peter Copeland, was the only story available about women in the Persian Gulf. *She Went to War* is the moving story of Major Cornum's experience as a surgeon, mother, helicopter pilot, wife and prisoner of war. She was one of two women taken as prisoners of war during the Gulf War. She was flying as a flight surgeon in the back of a Black Hawk helicopter on a search and rescue mission to retrieve a downed and wounded F-16 pilot, Captain Bill Andrews. Her helicopter, piloted by Chief Warrant Officer Robert Godfrey and

Chief Warrant Officer Philip Garvey who were experienced instructor pilots from Fort Rucker, Alabama, was shot down at night over the desert on February 27, 1991. She and Sergeant Troy Dunlap were the only survivors of the crash. They were taken prisoners by the Iraqi Republican Guard. She was transported with her injuries--multiple broken bones in her arms-- to Baghdad and held prisoner until March 5,1991. Her account is the story not just of her capture and imprisonment, but the story of her life in the military and her choices to become a medical professional who also served her country.

Major Cornum and her ghostwriter Mr. Copeland tell the story of Rhonda finding herself accepted within military circles as a woman and physician. She portrays herself as an exception to the rule, finding herself as different from other women through her experience and profession. She also portrays herself as an exception to citizens who may not find the need to challenge themselves as she has; it is through her hard work and dedication that she succeeds. For her, the path through the military, while not easy was not one of sexual harassment, conflict, or turmoil. This is not surprising, according to Patricia Thomas and Marie Thomas, who cite a 1988 study of women Air Force officers': "assimilation required adapting their roles to conform to male standards...but they recognized and accepted they were not men at the same time knowing they were not 'typical' women. Therefore they became 'the exception' or the 'other" (Thomas 41). Rhonda Cornum's portrayal of herself as an exceptional woman is therefore how she must see herself in the malecentered world of the military. It would be easy to compare her experience to other women military members' self-portrayals if there were any others. Without other stories of what life is like for military women in the theater of the Persian Gulf War, her story does stand alone as an exception to all rules. Since her piece was, however, not her creation, not her own heroic act of writing, it is difficult to compare her story to all the others, who create a history of writing before her. The use of the ghostwriter diminishes her ability to tell her story in a heroic way that would allow me to

celebrate her writing as well as her story. There is something heroic in the act of writing that, for women, must be encouraged as much as the exploration of what it is that women must talk about.

For women in the civilian world during the Persian Gulf War and the unruly world that emerged, 14 years should be enough time from experience forward to start seeing writing about war. Men have been writing that War and other conflicts since, without fail. There has been no lapse in production for men writing the war story/ the war experience. We only have to look at novels like Black Hawk Down and JarHead to see that the mystique of a male-centered war story still exists and can be written about today's conflicts.

Lastly, to consider the larger contextual surface of how the war is portrayed may have some effect on women's writing. War today is portrayed on our televisions 24 hours a day. Tylee's description of hostile actions would fit every newscast and every newspaper. We are surrounded by its effects and constantly bombarded with warnings and fear, but we live in a relatively stable environment. Martha Gellhorn wrote about the "fear syndrome" during the Vietnam War:

The fear syndrome, by exaggerating Vietcong power for destruction, misplaces the real pain of the real war, and is immensely dangerous. It leads to hysteria, to hawk-demands for bigger war; it pushes us nearer and nearer to World War Three. The fear syndrome in no way serves the American cause; it can only jeopardize more American lives, with the ultimate risk of jeopardizing all life. (254)

Her words are prophetic. If we take out the word Vietcong and add Iraq, take out World War Three and add Holy War/ War on Terror, she is writing war today. The fear syndrome pervades women's lives. They feel themselves constantly under siege and so constantly under the pervasive air of war. But, it is also a pervasive air that is removed and far away. It is something that takes place in other people's lands, in other people's living rooms. American women can turn off their televisions and forget they live in hostile times because their children do not go hungry and they do not have their homes bombed or their loved ones missing. Other than September 11, 2001, most American women living today have had no direct experience with the effects and devastation of war. Are we

asking too much to find a literature emerge from fear-driven complacency that leads to a tune out and a turn off of writing the military community or the militarized existence of their lives? Maybe we are looking for something that cannot happen anymore; maybe the literature that emerged from previous wars and hostilities was the effect of a society that valued writing and expression as a form of culture.

Women must shake off the need to protect others from harsh realities. Patriotism and consumerism act as silencers. They work by concealing and enforcing fake protection. Patriotism leads women who interact with the military to feel their loyalty will be questioned. Loyalty and patriotism are buzzwords for concealing the truth. The word patriotic is closely linked with patriarchy—from the Greek patrios "of one's father." The words loyalty and patriotism seek to protect and defend a patriarchal system that does not protect the world's mothers, daughters, or son's from harm. The words protect the systems in place that act as the worlds' bully, at home and abroad. Women's voices must be raised to demand their inclusion. Their voices must rise above the buzzwords that encompass their world and seek to silence them in shame, contempt and invisibility. Their voices must say loyalty and patriotism have nothing to do with the truth. Women must find a voice about the military and about war. It is their context. It is their experience, and their stories are true representations of what the world looks like.

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Racial Hegemony in America: The Struggle for identity Among the Black Indians of the Five Civilized Tribes of the Southern United States

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The notion of race was introduced to the Americas at the time of colonization. For the Black Indians of the Five Civilized Tribes, racism has led to the rejection of their tribal heritage from both tribal and United States governments. The Black Indians are of both African and Native American ancestry with a history born in America and rich with resistance against colonial power. quantum, the governmental requisite for tribal membership, is but one of the many laws put in place to govern Native American tribes. This introduces the question: Why, in a Nation that claims "freedom for all," does there continue to be groups of people whose identities are not recognized? Why are descendants of both Native American and African ancestors ineligible for education scholarships, land allotments, gaming and fishing rights and other tribal allowances? In 1965 African-Americans were marching on Washington to demand their rights as American citizens. Today, Black Indians are marching on Washington from Indian Territory in Oklahoma to demand their rights. As a people who represent the continuing struggle for American freedom, the case of the Black Indians of the Five Civilized Tribes demonstrates how hegemony introduced the hypodescent rule or "one drop of blood" rule by the United States, laid the foundation for systemic effects of the racial hierarchy within the tribes. As this is an issue that may be further explored, future research might include a comparative study of other unrecognized groups that have been affected by colonialism, incorporating archival research, research of material culture and oral histories.

Introduction

There are many tribal groups within the United States who remain unrecognized by governmental and societal institutions due to issues of race. The Black Indians of the Five Civilized Tribes represent a community of individuals who are the descendants of both Native American and African ancestors from the Southeastern region of the United States.

At the birth of the American colonial experiment, race served as a distinguishing factor in roles of domination and subordination among individuals. Later, race became codified into law

through legislation such as the Dawes Act, which was, and continues to be defined by blood quantum. Today, the concept of race continues to be woven deeply into the fabric of American society. For the Black Indians of the Five Civilized Tribes, racism has led to the rejection of their tribal heritage from both the tribal and the United States governments. Members of the Black Indians of the Five Civilized Tribes are a self-ascribed people, who have for many years, endured the struggle of gaining both federal and tribal recognition as an existing people with a rich history in the United States. The significance of self-defined identities is to be emphasized here. How is membership defined as per the individual and the tribe, contrary to the Bureau of Indian Affairs of the United States? Biology or blood quantum is but one example of governmental provisions imposed on Native tribes. When such constraints for group inclusion are made, they serve to disregard the Native customs and imply the colonial ideology, creating subsequent damage to the social fabric within the tribes. Why in a Nation that claims "freedom for all", there continue to be groups of people whose communities are not recognized? Why are the descendants of both Native American and African ancestors ineligible for education scholarships, land allotments, gaming and fishing rights and other tribal allowances? Is the reason for such an unequal distribution of rights the result of socio-economic structure founded on the basis of racial inequality? The story of the Black Indians of the Five Civilized Tribes demonstrates how the introduction of hypodescent, or "one drop of blood" rule, by the United States, laid the foundation for the systemic effects of the racial hierarchy within the tribes. It remains to be seen whether the civil rights of multi-racial people will become acknowledged in law. As one member of the Black Indians of the Five Civilized Tribes, Angela Molette exclaims: "The descendants of African ancestored tribes of the United States are not extinct." (2004). It is beyond time that United States accepts its obligation to its people to provide cultural and ethnic recognition as per the terms of each community.

Colonial Expansion:

The role of colonization presents a host of conflicts for those being colonized, although the accounts written in history present the issue of moral right and wrong solely from the perspective of the colonizer. Europe has played the leading role in mapping the bloody trail to Western Civilization, yet this is presented in such a fashion as to glorify the actions of the colonizers without recognizing the systemic plague of socio-economic and race issues reassigned to the subsequent generations of the colonized.

First introduced by Marx, the idea of hegemony was further discussed by Italian born political theorist, Antonio Gramsci. Gramsci expanded the idea of cultural hegemony, where created reality put in place by the elite would be fed to the masses through cultural institutions such as schools, political parties and media (Gramsci 1971). Gramsci stressed the ideological effect, wherein the power of the ruling class would appear natural and desirable. In practice we must understand that the process of hegemony is in itself expanding. As Gramsci emphasizes that hegemony is not a stable process, and must be continually revised (Gramsci 1971).

The process of hegemony is complex and includes all relationships, activities and experiences of a society (Williams 1977). European conquest carries a few distinct characteristics, at the forefront of which was Christianity, as an integral constituent of the political arena. The plan to build a socio-economic structure based on capital and the exploitation of resources to the benefit the colonizer, resulted in the plantation system. The need for labor in such settings generated the Trans-Atlantic Slave trade, as well as the enslavement of indigenous peoples. An economic class system was well underway with the hegemonic traits that applied to cultural and color distinctions between members of the society.

From the beginning of European arrival upon the soil of the New World, a color-based hierarchy was applied to the developing social structure of what we today identify with as America. The concept of race and or act of racism carries with it a history that is not unique to the New World, but rather intricately woven into the colonial ideology. The plantation hierarchy demonstrates not only the colonial characteristic of a need for labor in obtaining resources, but also the manner in which racial hegemony promoted hypodescent as a socio-economic factor in the United States. Color was a determining feature in the chain of command on the plantation. Multiracial individuals who were lighter skinned, and often the products of rape by white owners, were often chosen as overseers or headmen. These roles reduced the darker skinned African to the lowest of the subordinate. By putting overseers in the position of violently disciplining slaves, colonizers created a system of internalized racism among people of mixed race (Craton 1982).

The hypodescent rule was first recognized during the times of the slavocracy as racial mixing began to occur. It has often been referred to as the "one drop rule," in that it suggests that people with any visible amount of black-African ancestry are by definition black (Harris 1974). Thus if a person is 75% Anglo and 25% African, he/she is considered Black. Hypodescent in the United States has produced problems for the Black Indians of the Five Civilized Tribes. The rule offers no option for Black Indian status, nor does it acknowledge these individuals as Indian because they are

of darker skin. Because there is great ambiguity and lack of representation in many historical documents regarding non-white individuals, determining family lineage is problematic for the Black Indian. The vagueness of terms such as Mulatto and Freedman has introduced complications in identifying with one's heritage and has added to the challenge of estimating the actual number of Black Indians. "Mulatto" sometimes implies a multi-racial person of African descent; however, over time mulatto has come to imply a person of only white and African descent (Forbes 1993). There have also been difficulties in distinguishing the term "Freedman" as exclusively African, due to the presence of white indentured servants, and Native American slaves, who, when freed, would also be considered Freedman (Craton 1982).

During the colonial period, racial classifications were at their apex. Race served as a means by which hegemony is imposed on society. By drawing distinctions between themselves and the Natives and or slaves by using names such as "negro" or "savage," colonizers could justify their role in maintaining power in applying subordinate roles to others (Gotanda 1995). At the time of colonization, the British Crown treated Native American tribes formally as sovereign nations (Canby 1998). As colonies grew in population, individual colonists began encroaching upon Indian lands. Most Native Americans were forced to leave their lands, and those who stayed were forced to adopt the institutions of the colonizer. The category "Civilized Tribes" was employed to identify the people of the Choctaw, Creek, Chickasaw, Seminole and Cherokee Nations after their adoption of such European institutions as churches, schools, constitutions, and slavery (Debo 1968).

Africans were also forced to adopt the church while being held as slaves. It was believed that African spiritual beliefs were ignorant and superstitious (Pickney 1998). Christianity played a role in the colonization of the Americas long before the nineteenth century. It is documented that in 1693, a Spanish royal decree promised asylum [in St. Augustine, Florida] to those slaves who had escaped the British colonies in the North, provided they converted to Catholicism (Bateman 1990: 31). It is important to note that while Christianity acted as a vehicle for the colonial powers, it also served as a means for the African expansion in the south. While slaves began fleeing the British colonies, they were coming face to face with Native Americans. The name given to these men and women was *Cimmarones*, which is of Spanish origin and means wild or feral, and later evolved into the term Maroons (Weisman 1999).

While the majority of Maroon studies are found in the Caribbean and in Latin America, this is not to suggest that slaves did not rebel in the United States. The first slaves brought to what is now the United States arrived in the late fifteenth century and were delivered to present day

Manhattan. Many were then taken south where they would reside on plantations and be worked as though they were subhuman. It is now understood that that docile slave was not the typical character of slave communities. Rather ideas of revolt and violence were at the forefront of the minds of many slaves. Maroon communities stretch throughout the Caribbean and into the Americas, and Maroon heritage is preserved in many of these countries as well. Today descendants of Maroons exist throughout the United States. The Gullah are descendants of escaped slaves and continue to reside on an island in South Carolina. Their culture has persevered through oral histories (Pinckney 1998).

The desire to leave the plantation was immense among slaves. Given the terrain of specific areas in the Southeastern United States, the feat was difficult. Adopting cultural concepts of the white man, Native American groups in the Southeast created their own form of slavery that would result in the intermixing of African and Indigenous peoples.

The system of slavery among Native groups differed greatly from the chattel slavery common among the white man. With the stresses of colonial encroachment, Native Americans often caught slaves and kept them as informants (Watts 1986). Although the Indians were adopting the culture of white man, settlers became infuriated that in conjunction with such cultural modifications, the Indians were able to contest colonial encroachment. Some Indians sold plots of land to colonial settlers who wanted land in Indian territories, but many Indians refused to leave their ancestral lands (Debo 1968). In 1829 Andrew Jackson became President and enforced the Indian Removal Act of 1830, by which he sought the removal of any tribe east of the Mississippi.

Resistance and Alliance:

The Removal Act of 1830 was a racially motivated ploy driven by the interest of capital. Not only did the Act rob Native Americans of their ancestral homelands, it sought to eradicate Native American culture. In 1829, with the full intent of pushing them out, the state of Georgia made it illegal for any Cherokee to hold council. In addition, Georgia persuaded citizens to rob their Indian neighbors, as it was illegal for an Indian to bring a suit against a white man (Canby 1998). In 1830, persuaded by similar motives in regard to the Choctaw and Chickasaw, the state of Mississisppi extended legal rule over both tribes, making them citizens of the state. A sentence of imprisonment would be employed if they were to hold any tribal office (Debo 1968). Eventually the tribes would be forced to march the Trail of Tears to Indian Territory in Oklahoma. By this time alliances between Native American and runaway slaves were being made, the most noted of which was

among the Seminole and the Africans fleeing from the north (Foreman 1989). After having moved the majority of the Choctaw, Creek, Cherokee, and Chickasaw Nations, Jackson's army headed south to Seminole territory where they were faced with a young chief named Osceola. Resistant to move, the Seminole, coupled with the many escaped slaves, launched the Second Seminole War (Fairbanks 1973). This war exemplifies the alliances created between Africans and Native Americans. In a letter from Wiley Thompson, (A Seminole Agent) to Secretary Lewis Cass on April 27, 1833, he noted: "Negroes enjoy equal liberty with their owners. Many slaves have stocks of horses, cows and hogs, which the Indian owner never assumes the right to intermeddle." Followed by a gross assumption, "that an Indian would almost as soon sell his child as his slave, except when under the influence of intoxicating liquor" (Foreman 1989: 326). This marks the beginning of how racial hegemony encouraged the notion of hypodescent in relation to the Black Indians of the Five Civilized Tribes.

The Seminole had alliances with Maroons long before the other of the Five Civilized Tribes, perhaps because of the Spanish Royal Decree mentioned earlier. Because of these alliances, they had also long since been intermarrying and creating familial ties with Africans. Much was the same for the Creeks of North Carolina, as many of the escaped slaves fleeing British colonies met the tribe in route to St. Augustine, Florida (Bateman 1990). In 1866, following the Civil War, treaties between the United States government and the Five Civilized Tribes were established regarding the issue of Freedmen. Following the treaties between Choctaw, Chickasaw and United States government, a treaty between the Cherokee and the United States government was ratified: "All persons of African descent in said nation[s] at the date of the Treaty of Fort Smith and their descendants heretofore held in slavery among said nations, all the rights, privileges, immunities, including the right to suffrage; also to give such persons and their descendants forty acres of land on the same terms as the Choctaw and the Chickasaw" (Kappler 1904). These treaties were ratified in June and July of 1866 and proclaimed one month following. The Dawes Act of 1887 and the United States government.

Government Legislation & Cultural Implications:

The Dawes Act of 1887 was an action taken, subsequent to a visit to Indian Territory by Senator Henry L. Dawes. Dawes, like many other bureaucrats of the time, was uninterested in the idea of cultural diversity, and sought to make Indian Territory a capitalistic economy much like the

United States. One failure in the idea of the Dawes Act was its propensity toward colonial ideology. The Dawes Act was an act of colonial economic interest that had a great impact on Native America and African culture and identity. Dawes felt that because Indians owned land in common with one another, they would be unsuccessful in the world of enterprise. "Until these people give up their lands, and divide them among their citizens so that each can own the land he cultivates, they will not make much more progress" (Debo: 22). Race was to be a defining factor in where people were placed, after members of the Lake Mohonk Conference accepted Dawes' theory and advocated reform. The Dawes Severalty Act of 1887: An Act to provide for the allotment of lands in severalty to Indians on the various reservations, and to extend the protection of the United States and territories over the Indians for other purposes. Before the act could doll out land to the tribes it first wanted a list of all members, which came to be known as the Dawes Rolls. Given the earlier provisions requested by the Choctaw, freedmen and their descendants were refused citizenship on the rolls (Peterson 1995). The Dawes Commission and the Federal government together decided Land allotments. In 1895 Congress authorized a survey of the land, and in one year the Dawes Commission would be responsible for providing a list of all citizens (Debo 1968). During the enactment of the Dawes Act, the Curtis Act of 1898 was endorsed. The Act served as a threat and eventually would abolish any tribal tenure without Indian consent. The various acts presented here, are examples of the racially motivated laws, used to control people of color with interests other than capital gains. Inevitably the rolls would present a problem for anyone who did not meet the "blood quantum" requirement.

Throughout history the remnants of the Dawes Act have impacted multi-ethnic descendants of Native Americans. In 1930 the Alabama census notes that Creoles, "a separate social class intermediate in racial status between whites and Negroes, are a mixed people with a possibility of having Indian blood" (Gilbert 1948). When mentioning the Cajuns, Gilbert notes, "They are reputed to be part Indian and part white, while a certain number are said to show Negro blood" (1948). Gilbert addresses the communities in which the Cajuns live and I believe it of importance to note. He states that the communities are "isolated and difficult to access", (423), this is indicative of the nature of early Maroon and Native American settlements. The alliance between the two groups encouraged the separation from the oppressor group, and today in many countries of the Caribbean and Latin America these descendants remain in the locations where their forefathers sought refuge. Similarly in the United States, nearly all of the archaeological remains of the Maroon and Native

American alliance may be found in areas that would have been dense with brush or swamp, as these were a resilient people who went to any means necessary to survive.

In contrast, The Dawes Act enforced the idea that if one had "enough" Indian blood he/she would then be granted land. The concept of enough Indian blood was then decided by United States legislation and not by the members of the tribes. Therefore, members that were granted Indian status were those that fit the racially motivated description assigned by lawmakers. This idea continues today and has been the driving force behind racial /ethnic scrutiny among the Black Indians of the Five Civilized Tribes. Before allotting any lands, the Dawes commission created rolls of the various ethnic groups on the reservations, [as noted in Table 1]. Not only did the Dawes Act prove to assign land to those that Congress saw fit, [see Table 2], it also created racial hegemony among tribal members. The concept of internal colonization, which occurs when a ruling body treats a group within its own country as a foreign entity, is at the head of the hegemonic process sought out through the Dawes Act. For people of African and Native Ancestry, the Act did not award them much. Many people with African "features" were not granted anything (Debo 1968). Racial hegemony paved the way for the rule of hypodecent in the United States, which subsequently filtered into the Native American societies that were so greatly oppressed by the United States government. These laws drove black children out of Indian schools, off Indian lands and back into the racially controlled south. Alliances created during the most necessary times of survival were now lost in the oral histories of elders, as the new generations had to struggle for survival in the American ideology of capitalism. In the Register of Choctaw Emigrants to the West of 1831 and 1832, the names are of European lineage with no acknowledgement of their own cultural heritage. This is an example of how one may be classified as belonging to a particular ethnic group due to skin color, yet may not preserve the cultural heritage that accompanies the black hair and dark skin if he or she wished to survive in this new economic system. These new ideas pushed many Native Americans to cast off their culture and adopt racial ideas of supremacy.

Defining one's identity through biology was not a practice of the Five Civilized Tribes. Often kinship ties within the Five Civilized Tribes were matrilineal and based in relations built upon residence (Foreman 1989). The role of the woman in tribal culture is intrinsic to Native American cultural preservation. By re-defining a basis for identity, cultural preservation becomes threatened. While the threat of losing cultural preservation looms when a child is born to a non-native mother, the situation becomes far more problematic when features that define identity become blurred. Such is the case with any culture that has been socially restructured by an outside entity.

Post-colonial problems of defining identity and kinship are intrinsic to the colonial system, as ruling ideologies often sharply contrast with ideologies of the dominated group. In future studies we might compare other tribes of the United States that have also faced the threat of loss of cultural preservation due to redefined kinship.

Socio-Economic Subordination:

Today many Native Americans remain on reservations, some in small towns, and some on the streets in cities. And while they have been robbed of their culture and land, they remain Native American. Where does this leave the people of African descent whose ancestors are also Native American? Today the Black Indians of the Five Civilized Tribes are fighting for governmental recognition. Having been excluded from the Dawes Rolls, many have no evidence of their tribal membership. In 1866 the state of Virginia proclaimed that "Every person having one quarter or more Negro blood, shall be deemed a colored person, and every person having one quarter Indian blood shall be Indian." Later the rule became more stringent, considering anyone with any African ancestry a colored person (Forbes 1993). Blood quantum remains the deciding factor, however the application entails, familial names that must correspond with the rolls. Because the rolls are federally based, one must consider the motivations of the federal government when reviewing them. Blood quantum encourages white principles, as it imposes biological validation for membership that had never before existed among Indians. Forbes suggests that blood quantum seeks to eliminate the Native American race as a whole (1993). As mentioned before the role of the Federal government has been essential in the present condition of Native American people who are not recognized.

The interest of capital plays a key role here, as Marx suggests there are levels within the capitalist society that represent dominant and subordinate roles, without which the capitalist society cannot exist (Marx & Engels 1947). When addressing the process of hegemony in the United States, one must address the economy. Because American culture is so engrained with ideas of consumption, we think in the form of capital gain. As Gramsci pointed out, institutions such as schools, political systems, and media are tools to feed the masses a desirable ideology. The descendants of Africans and Native Americans are the subordinates of the socio-economic agenda of the United States, as the direct result of a pre-designed socio-economic structure. Today Black Indians are not afforded land allotments, nor are they awarded educational scholarships and grants. In response to Gramsci, would educational grants be the appropriate reparation for generations of

cultural degradation? Or might it be of more value to the individual tribes to teach their tribal culture and heritage to the future generations?

These internal conflicts are the product of laws excluding African ancestors from the tribes. In 1941 the Department of the Interior Solicitor Nathan R. Margold excluded Freedmen from the definition of citizenship, despite the language of the treaties of 1866 (drafted by the five tribes) that specifically includes Freedmen (Molette, A 2004). The Federal government forced tribes to make revisions in their constitutions considering only those people lineally descended from people on the Dawes rolls as members. The inclusion of Black Indians has brought conflict within the Five Civilized Tribes (Molette 2004). This has only proven that the Federal government has no intention of respecting the cultural and ethnic values of the tribes, and would rather they behave in a manner that benefits the socio-economic agenda of the Federal government.

Concerns of a Pan-American Indian identity become relevant when observed through the hegemonic lens. With governing bodies creating laws that meet the needs of the ruling economy, where does this place the sovereignty of the tribes? The Five Civilized Tribes were brought to Oklahoma because the government sought to consolidate the indigenous population. That one term is used for the Chickasaw, Cherokee, Choctaw, Seminole and Creek implies a Pan-American Indian identity already. Recognition within the tribe and within the government is the goal of the Black Indian. Today there are over two hundred and twenty tribes who remain unrecognized by the federal government. Within those tribes there are Black Indians. Gaining tribal recognition is a lengthy and costly process that often results in years of waiting only to be denied. The federal government saves millions of dollars yearly by not awarding tribal status. Upon gaining status, healthcare becomes available to members, as well as land and educational grants mentioned before. Considering the hegemonic process and the hypodescent rule: Will the government see the Black Indian as an individual of a specific tribe, or rather as a percentage of African ancestry and a percentage of Native American ancestry? Thus creating a Pan-Black Indian identity.

Today Black Indians are furious with Legislative silence regarding their identity. In response, members have planned a march on Washington, which took place on August 7, 2004. It began at the 900 year old Spiro Mounds in Spiro, Oklahoma and ended at the reflecting pool in Washington D.C. By publicly appealing the exclusion of Treaty rights and federally mandated programs, the hope was to address Congress as well as the President to re-enfranchise the Black Indians by executive order. The Treaty rights, such as land allotments and federally mandated programs, such as education grants, and scholarships benefit American Indians, however, due to the hypodescent rule,

Black Indians are excluded. Today the Black Indian exists among the many faces that represent American society, and as such have a right to be recognized. Eleanor "Gypsy" Wyatt, chairman of the Freedmen Descendants of the Five Civilized Tribes, describes her identity as "a reminder of the inhumane treatment against a people." She explains: "Though my complexion is of a dark hue, my African brothers don't claim me for my hair is too straight or wavy, my nose is not broad, my lips are not full. My Choctaw and Chickasaw brothers won't claim me, although my features are much like their own" (Shabazz 2003).

Through narratives such as this we might begin to recognize the systemic effects that colonization has had throughout the years. The plague of a racist economic and social structure continues to exemplify America. When members of American society are asked how they identify as individuals, the answer may be complex, as American identity contains various factions of American culture. Almost certainly the answer will include a tidbit of ethnic heritage and most often that heritage has a known place of origin. For many African Americans, the absolute location of ethnic identity is often difficult to trace. When considering the Trans-Atlantic Slave trade, establishing the home country of the hundreds of thousands of individuals displaced by the trade brings about many heartfelt emotions of anger and grief. While claiming identity is problematic due to lack of documentation of familial lineage on both the African and the Native American sides, the Black Indians of the Five Civilized Tribes are faced with an even greater difficulty: the failure on the part of the United States government to acknowledge a people born out of the oppression of colonialism. Angela Molette exclaims in her letter regarding the march on Washington, "The descendants of African ancestored tribes of the United States are not extinct" (2004). It remains to been seen whether or not groups such as the Black Indians will be allowed a scholarship based on their Native American heritage, or a plot of land that their forefathers plowed and harvested, or simply the opportunity to state their heritage in their own terms.

This issue embodies elements of socio-economic agendas that must be critically reviewed. Future research in the identity of the Black Indians of the Five Civilized Tribes might include a comparative study in racial hegemony that would incorporate archival research, research of the material culture, and oral histories. It would be useful to compare other unrecognized groups that have been affected by colonization. What types of documentation were being recorded among the various groups; are the colonized groups telling their stories, if so where are these stories found? Because of the lack of documents revealing their history, oral histories of the descendants of the Freedmen of the Five Civilized Tribes would be of great importance.

Table I: Final Dawes Rolls [1904], (Debo 1968)

	Full bloods	Mixed Indians	total W	hites	Freedmen	total
Cherokee	8,703	27,916	36,619	2864,919	41,82	4
Choctaw	7,087	10,401	17,488	1,651	6,029 `	25,168
Miss.Choctaw	1,357	303	1,660			1,66 0
Chickasaw	1,515	4,144	5,659	645	4,662	10,966
Creek	6,858	5,094	11,952		6,089	18,761
Seminole	1,254	887	2,141		996	3,127
TOTAL	26,774	48,745	75,519	2,582	23,405	101,506

Table II: Final Land Allotted [1910], (Debo 1968)

	Total Acreage	Allotted Acreage	Segregated & Unallotted Acreage
Choctaw-Chickasaw	11,660,951	8,091,517.48	3,569,432.52
Cherokee	4,420,068	4,346,145	73,923
Creek	3,079,095	2,997,114	81,981
Seminole	365,852	359,575	6,277
TOTAL	19,525,966	15,794,351.48	3,731,613.52

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Examining Differences in Student Achievments in Differential Equations

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This paper presents the results of an in-depth analysis of student responses to a differential equations modeling problem administered as part of an international comparison study. The international study compared students' skills and understandings in an inquiry-oriented approach to the teaching and learning of differential equations (project classes) to other traditional approaches (comparison classes). The guiding question of the research was to identify why United States comparison students fared better overall than project students on a routine modeling problem. To answer the research question a tripartite coding scheme was developed. The coding scheme illustrated that project students were failing to: (1) initiate a correct model of the problem, (2) understand conceptually the presence of time within a differential equation, and (3) appropriately interpret and apply the initial condition of the given modeling problem. Suggestions for improvements to the differential equations curriculum are included.

INTRODUCTION

Investigations of reform curricula on undergraduate students' mathematics achievement and attitudes have become increasingly predominant in mathematics education literature (Schoenfeld, Kaput, & Dubinsky, 1998; Dubinsky, Schoenfeld, & Kaput, 2000). This study contributes to this growing body of research in undergraduate mathematics education by presenting a comparative analysis of student achievement for modeling differential equations in an Inquiry-Oriented Differential Equations (IODE) classroom (project) versus other traditional (comparison) approaches. We explore student understanding and conceptual learning of modeling techniques within differential equations by examining student's written work on final exams. In our analysis we hope to contribute to current IODE research present within undergraduate education and provide ideas of student learning of differential equations. We begin with a description of the larger, international study from which data for the present study was drawn.

Background: An International Comparison Study

In order to investigate students' beliefs, skills, and understandings in IODE as compared to other approaches to differential equations, data was gathered from four international sites. Two instruments were developed to reflect the goals of possible differences in student skills and

understandings. The first instrument, referred to as the routine assessment, consisted of eight items that covered a range of problems that reflect more analytic methods of solving differential equations and other topics typically emphasized in traditional approaches. The second instrument, referred to as the conceptual assessment, also consisted of eight items designed to reflect relational understandings (Skemp, 1987) and ways of conceptualizing the subject that are more consistent with a dynamical systems point of view.

Both the routine and conceptual assessments were developed so that they would be fair for all students. In keeping with this spirit, several mathematicians whose area of expertise is related to differential equations were asked to review the two assessments. These reviewers informed us that the items developed represented an important collection of skills and understandings for students in both traditional and reform-oriented approaches. The routine and conceptual assessments were organized around four themes centrally important to the study of differential equations: (a) Predicting and Structuring Solutions; (b) Modeling; (c) Parametric Thinking; and (d) Solving Analytic Problems. The work described in this paper focuses on the Modeling Theme.

Data Collection

In fall 2002, data was collected on IODE project and comparison students' beliefs, skills, and understandings in differential equations at four different locations, three of which were in the United States (henceforth referred to as the Midwest, Northwest, and Southwest sites) and at one international location in South Korea. Students at all sites were primarily engineering or mathematics majors (including prospective secondary mathematics teachers). This paper presents an analysis of data from the three United States sites only.

The routine assessment items (or a subset thereof, as determined by site instructors) were administered as part of students' final examinations. Table 1 summarizes the way that the final exams (and hence the routine assessment) were administered. As events turned out, the overwhelming majority of differences would more likely benefit the comparison students rather than the IODE project students.

Site	Routine Assessment Administration
Midwest Project	Class A: Closed book, no notes, calculators permitted
	Class B: Closed book, no notes, calculators permitted
Midwest Comparison	Class A: Closed book, no notes, calculators permitted,
	Class B: Take home final exam, Closed book, no notes, calculators

	permitted
Northwest Project	Closed book, no notes, calculators permitted
Northwest	One-page, double-sided sheet of notes and calculators permitted
Comparison	
Southwest Project	Closed book, no notes, no calculators
Southwest Comparison	Open book, no notes, calculators and computer algebra system
	Maple permitted

Table 1. Description of routine assessment by site

The conceptual assessment was administered to volunteers after the final exam. At all sites the conceptual assessment lasted 60 minutes. Students were permitted to use calculators, but none of the problems required or benefited from the use of a calculator.

After students completed the assessments each paper was coded and student names removed so that scoring of the papers was blind. Rubrics for scoring the routine and conceptual assessments were developed and each paper was graded by two project team members. A third project team member resolved differences that could not be resolved by the two graders. All results were entered into a database for subsequent analysis.

Site Descriptions

Comparison classes at all sites typically followed a lecture-style format whereas IODE project classes at all sites typically followed an inquiry-oriented format where students cycled between small group work on instructional tasks and whole class discussion of their ideas in order to foster progressive mathematization. Use of technology in the form of graphing calculators and Java applets were routinely integrated into instruction in the IODE project classes. The following paragraphs provide further details about each site, including institution description, teacher background, and comparison course texts and use of technology.

At the Midwest site students in the IODE project attended a mid-sized public institution with an open admission policy. There were two IODE project teachers at the Midwest site. One of teachers regularly taught differential equations for more than 10 years, but this was his first time teaching with the IODE project materials. Prior to this course all of his teaching had been conducted using a traditional lecture-style format. The other IODE project teacher was a recent PhD in mathematics with post-doctoral work in mathematics education and this was his third time teaching differential equations with IODE project materials. Since there were no other sections of

differential equations at this site, the Midwest location recruited comparison students at a nearby private university with considerably more stringent entrance requirements. The two teachers at the Midwest comparison site also routinely taught differential equations. Unlike the project class that was a 3 credit hour course, the comparison class was a 4 credit hour course that included treatment of linear algebra. The textbook used in the comparison class was Differential Equations & Linear Algebra (2E) by Farlow, Hall, McDill, and West (2000). Approximately 2/3 of the course was devoted to differential equations, which is roughly equivalent to the amount of time the IODE project students spent studying differential equations. Students in both comparison classes were allowed to use calculators for all work outside of class and they often used the computer algebra system Derive was often used in class.

At the Northwest site students in both the comparison class and the IODE project class attended a large state university. The IODE project teacher is a recent Ph.D. in mathematics education and this was her second time teaching differential equations with the IODE instructional materials. A teacher with more than 10 years of experience teaching differential equations taught the comparison class and the course used the text, *Differential Equations*, 2nd edition, by Blanchard, Devaney, and Hall (2002), which treats the subject of differential equations from a dynamical systems point of view. Students in the comparison class were assigned three projects during the term and used ODE Architect (2001) to complete the lab projects. ODE Architect was not available for students to use during exams.

At the Southwest site students in both the IODE project class and the comparison class attended a two year community college. The IODE project teacher had less than 2 years of experience teaching differential equations and this was the first time that he taught differential equations with the IODE project materials. The comparison teacher had more than 10 years experience teaching differential equations and the course used the text, *Elementary Differential Equations*, 7th edition, by Boyce and DiPrima (2001). Students in the comparison class were assigned three projects during the semester using the computer algebra system Maple.

Early Results

Although results of the international comparison study showed no significant difference between the IODE project and comparison classes when all eight routine problems were combined, an item-by-item analysis of the problems with the United States students revealed a significant difference in favor of the comparison students on the routine modeling problem. Using this result as a starting point, we set out to answer the question: Why was there a significant difference in

favor of United States comparison students on the routine modeling problem? In this paper we analyze student solutions to the modeling problem and identify where project students had difficulty to answer our primary research question. We also provide suggestions for improved student achievement of modeling differential equations.

METHOD

To address the Modeling theme, we agreed with Rasmussen et al. (2004) that the salty tank problem given to students on their final exam was an illustration of student's conceptual understanding of the relation between a differential equation and the model which represents it.

All students were administered a final exam comprised of eight routine items of assessment. Of all the routine items, comparison students fared significantly better than project students for only one problem. The problem of project student errors characterized a model of a salty tank with an inflow and outflow. Students were asked to develop a differential equation to represent the model and identify the initial condition. The actual problem given to students was:

A large tank initially contains 60 pounds of salt dissolved into 90 gallons of water. Salt water flows in at a rate of 4 gallons per minute, with a salt density of 2 pounds per gallon. The incoming water is mixed in with the contents of the tank and flows out at the same rate. Develop a differential equation and an initial condition which predicts the amount of salt in the tank as a function of time. You do not have to solve the equation.

Student's responded to the given routine question in a variety of ways. It was determined by an initial review of student solutions that student approaches to the problem were not a proper indicator of a successful completion of the problem. For instance, although a large portion of students approached the problem by drawing a picture of the activity and/or identifying that a differential equation representing the rate of change of salt with respect to time would be set up as inflow rate of a salt solution minus outflow rate of a salt solution, these did not guarantee the successful development of a final and correct differential equation for the problem. This becomes quite clear in our analysis. To provide an explicit example of an appropriate method for solving the salty tank modeling problem see figure 1.

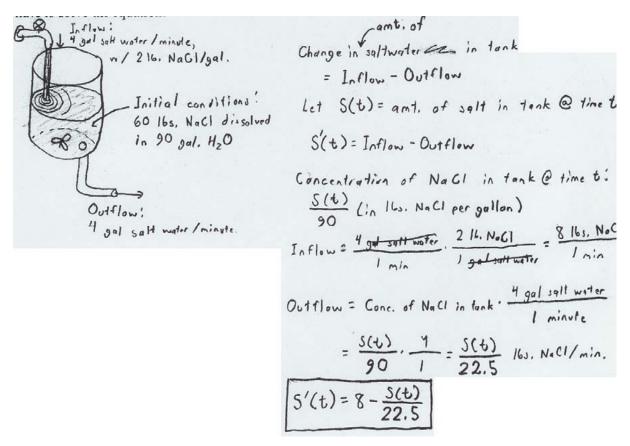


Figure 1. Example of a correct student solution to the routine salty tank problem.

Figure 1 illustrates a mapping of steps to a solution for the differential equation. As shown in the figure, the student properly (1) constructed a picture representing the activity, (2) clearly identified the initial condition and its relationship to the activity, and (3) recognized the differential equation as flow rate in minus flow rate out by stating "change in amt. of saltwater in tank = inflow – outflow". Figure 1 visibly shows an appropriate method for solving the salty tank modeling problem.

In order to quantify student solution methods it was concluded that an explicit analysis of student final solutions was necessary. The final solutions considered for analysis were solutions clearly marked as a final solution (i.e. circled), or at the end of a series of mathematical steps.

In reviewing student's final solutions to the salty tank problem on their final exam we observed reoccurring errors were being made. These errors included student's setting up the solution incorrectly (unable to identify "flow rate in – flow rate out"), including a dependent variable with their final solution, and including the initial condition within their final solution. Note that this is not an exhaustive list of all errors, but the three most commonly performed errors by students. Additionally, students may have made more than one error within their solution, which is reflected within the data analysis.

To fully analyze student solutions it was necessary to construct an error coding system, in addition to the grading rubric previously established by Rasmussen et al. (2004). The preliminary tripartite coding scheme was conjointly developed by both authors, but refined by Horst to aid in further explicit analysis.

The preliminary coding scheme consisted of three layers simulating steps to a correct different equation that represented the model. The preliminary coding scheme consisted of a numerical value of whether the student successfully achieved each layer. Once the preliminary coding was completed it was necessary to further analyze where student errors existed within the solution which is represented by the refined error coding scheme. Next we describe the three layers of coding that emerged from our data analysis.

A basic understanding of the salty tank problem involves recognizing that the rate change of salt with time (dS/dt)respect to can be expressed "flow rate in - flow rate out". We see this as similar to Sherin's (2000) symbolic forms, in that we have the basic structure "?" = "?" - "?". Thus, the first layer of coding focuses on the ways in which students set up the differential equation. If students were unable to set up the problem correctly, they were unable to conclude a final, correct solution. To aid in analysis an explicit coding scheme was established to provide explanations why students did not complete the first layer. Within the coding scheme, a numerical value was given for the error or errors students made. Of all the errors student's made, six were popular among the majority of students. These errors were: (1) no attempt at the problem, (2) setting up the differential equation as dS/dt = "?", (3) setting up the differential equation as dS/dt = "?" - "?" +/- "?", (4) including the initial condition within the differential equation, (5) setting up the differential equation as dS/dt = "?" + "?", and (6) including the dependent variable t within the differential equation.

An illustrative example of a student who did not successfully complete the first layer is shown in figure 2.

$$\frac{6016}{905e^{44}} \quad \text{ rate } m = \frac{44}{34}, \frac{216s}{34} = \frac{816}{9901} \quad \text{ rate } nA = \frac{43e^{1}}{100}, \frac{516s}{100} = \frac{56}{100} = \frac{516}{100} = \frac{516}{100}$$

Figure 2. Example of a student who did not identify dS/dt = "?" - "?".

Figure 2 illustrates that the student was unable to set up the differential equation correctly. The student identified the differential equation as equal to "(rate in – rate out) + C". Although the student did identify "rate in – rate out", he/she also added a variable "C" which we consider to be a constant term the student believes would influence the differential equation.

The second layer represents an identification of the appropriate rate in for the differential equation dS/dt = flow rate in - flow rate out. Both authors determined a portion of comparison and project students, 9 and 9 respectively, were setting up the problem correctly, but determining the flow rate in incorrectly, and felt due to the number of student's doing this, it should be considered as the second layer. For all but 4 of the 45 comparison students, the students who did not identify the proper flow rate in also did not identify the proper flow rate out. As with the first layer, the second layer was also given a numerical error coding scheme for student error or errors. Of all the errors student's made, six were popular among the majority of students. These errors were: (1) including the dependent variable t within first term of the differential equation (i.e. dS/dt = 8t - 4S/90), (2) a basic arithmetic error (i.e. 2*4 = 6), (3) dividing the entire right-hand side of the equation by 90 (i.e. dS/dt = (8-4S)/90), (4) including the initial condition within first term of the differential equation, (5) placing the flow rate in as the flow rate out (i.e. dS/dt = "?" flow 8), and determining the in 2/4(6)rate as (i.e. dS/dt = 2/4 - "?").

An illustrative example of a student who did not successfully complete the second layer is shown in figure 3.

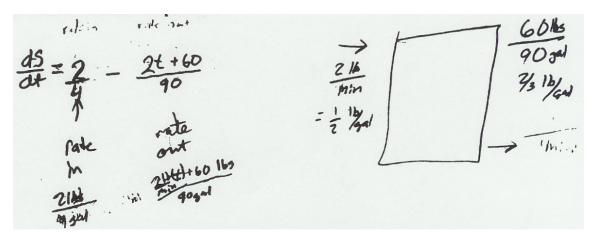


Figure 3. Example of a student who did not identify the correct flow rate in.

Figure 3 clearly demonstrates that the student was unable to determine the correct flow rate in for the differential equation of the rate of change of salt with respect to time. We hypothesize the student did not interpret the inflow and outflow as rates, but as amounts. Although the student did provide a picture of the activity and explicitly states "dS/dt = rate in - rate out", this was not enough to determine a correct solution.

The third layer represents a final, correct differential equation as a solution to the model of the salty tank. Both authors agree that this should be the final layer within the error coding scheme. The last layer identifies that the student was able to properly identify flow rate out, in addition to the previous requirements of setting up the problem correctly and determining the appropriate flow rate in. Clearly, this layer is the last and final step for solving a differential equation for the salty tank model. Similarly to both the first and second layers, the third also has a numerical error coding scheme to provide explicit information where students went awry. Of all the errors student's made, five were popular among the majority of students. These errors were: (1) including the dependent variable within denominator of the differential t the equation (i.e. dS/dt = 8 - 4S/(90 + t)), (2) including the dependent variable t within the numerator of the differential equation (i.e. dS/dt = 8 - (60 + 8t)/90), (3) including the initial condition present within the second of the differential term (i.e. dS/dt = 8 - 4*(60 + S)/90), (4) for the incorrect solution dS/dt = 8 - 4S, and (5) for the incorrect solution dS/dt = 8 - S/90.

An illustrative example of a student who did not successfully complete the third layer is shown in figure 4.

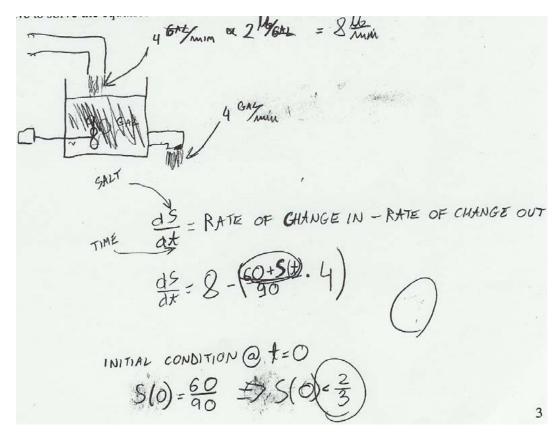


Figure 4. Example of a student who did not identify the correct flow rate out.

Figure 4 depicts a student who was unable to determine a correct flow rate out for the differential equation of the rate of change of salt with respect to time. We hypothesize the student attempted to include the initial condition within the differential equation by including the values 60 and 90, components of the given initial condition, within calculated flow rate out. Although the student provided a picture of the activity and identified that dS/dt = "rate of change in – rate of change out", this was not sufficient to led to a correct solution.

In the next section, we further analyze the implications of student errors when solving the routine salty tank modeling problem.

RESULTS

The successful completion of each layer leads to a final and correct solution for the salty tank routine modeling problem. Although a large portion of students were able to correctly construct a picture representing the activity and/or properly identify the rate of change of salt with respect to time would equal flow rate in minus flow rate out, this did not ensure a correct final solution.

As we analyzed student's final solutions and their approaches to these solutions it was apparent that three components were continually rising to the surface, which is illustrated within the tripartite coding scheme. Each layer coincides with an error or errors that students made in the process of solving the modeling problem. Note that if students did not successfully complete the previous layer, they were unable to progress, which is represented by the decreasing population of students within each layer. To clearly see the quantity of students who did and did not progress through each layer three tables were constructed, tables 2, 3, and 4.

Layer 1: dS/dt = "?" – "?"		
Comparison (n=45)	87%	
Project (n=61)	69%	

Table 2. Quantity of students whom successfully identified dS/dt = "?" - "?".

Table 2 illustrates the percentage of students, comparison and project, whom successfully set up the differential equation correctly. As exhibited by table 2, 87% of the comparison students and 69% of the project students correctly set up the differential equation by identifying that dS/dt = 1 flow rate in – flow rate out. The quantity of project

students who incorrectly set up the differential equation is significantly greater than the quantity of comparison students, implying project students do not understand how a differential equation representing the rate of change of salt with respect to time would be initially set up.

Layer 2: $dS/dt = 8 - "?"$		
Comparison (n=39)	77%	
Project (n=42)	79%	

Table 3: Quantity of students whom successfully identified dS/dt = 8 - "?".

Table 3 presents the percentage of students, comparison and project, whom successfully identified the correct flow rate in for the differential equation. As shown in table 3, 77% of comparison students and 79% of project students correctly identified dS/dt = flow rate in – flow rate out and calculated flow rate in as 8. The percentages of students from both groups are quite similar, implying that improperly identifying rate in was an error demonstrated equally by both groups.

Layer 3: $dS/dt = 8 - (4S)/90$		
Comparison (n=30)	80%	
Project (n=34)	44%	

Table 4: Quantity of students whom successfully identified dS/dt = 8 - (4S)/90.

Table 4 exhibits the percentage of students, comparison and project, whom successfully identified the correct flow rate out for the differential equation. In turn, these students also identified the correct differential equation representing the activity. As shown in table 4, 80% of comparison students and 44% of project students correctly

identified dS/dt = 8 - (4S)/90. The quantity of project students who were unable to correctly identify flow rate out is significantly greater than the quantity of comparison students, implying project students are unable to identify and compute a flow rate out for a differential equation representing the rate of change of salt with respect to time.

It is evident within tables 2, 3, and 4, that the majority of project students were unable to successfully reach a correct final solution. Only 25% of the total project students actually reached a correct final solution, whereas 53% of the total comparison students were able to successfully complete the problem. Project students, and few comparison students, had trouble (1) initiating a proper model of the activity by determining that the rate of change of salt with respect to time would equal flow rate in minus flow rate out, (2) identifying whether time was an independent or dependent variable, and (3) the relationship of the initial condition to the differential equation representing the model. It appears obvious from the data that project students do not fully understand modeling a differential equation in greater numbers than comparison students. The next section will focus on suggestions to improve overall student achievement, leading to the development of correct solutions for modeling differential equations.

SUGGESTIONS FOR IMPROVED STUDENT ACHIEVEMENT

To prevent future project and comparison students from making the same reoccurring errors as our study students did, we provide some suggestions for improved student achievement.

After concluding what and where students were making their errors, we revisited the format of the class which covered modeling of differential equations. Within the specific class that addresses modeling, students are instructed to discuss and solve a problem similar to the routing salty tank problem. Unlike the routine question asked on the final exam, students are presented with a modeling problem where time is an independent variable. We postulate that students do not fully understand the relationship of time within the differential, and the process of identifying whether time is an independent or dependent variable. To counteract students' misunderstanding we propose three solutions for improved achievement.

To address students' overall understanding of independent and dependent variables within differential equations we suggest providing homework problems similar to the routine salty tank problem, that probe students thinking of variables within differential equations. We additionally propose students reflect on their learning by completing a journal entry concentrating on independent and dependent variables within differential equations. Some questions that will require students to examine their understanding of variables are:

- (1) Why does the rate of change with respect to time equal flow rate in minus flow rate out?
- (2) When and why are independent and dependent variables represented within a differential equation?
- (3) Is it possible to have a differential equation where the only variable present is the independent variable?
- (4) Is it possible to have a differential equation where the only variable present is the dependent variable?

To exemplify the importance of modeling differential equations, we find it essential to focus only on modeling for the duration of the class session where modeling is first introduced. The project students were subjected to modeling differential equations in addition to the introduction and application of the Reverse-Product Rule. The two topics addressed are seemingly disjoint to students first experiencing them. It appears that student's focus primarily on the Reverse-Product Rule, paying little or no attention to the modeling technique of the differential equation presented in the first half of the class session. We postulate that students will gain a better

conceptual understanding of the modeling technique of differential equations by devoting an entire class session.

Lastly, and most obvious, we suggest reexamining the modeling technique prior to the conclusion of the term and final exam. Reiterating the key concepts of modeling differential equations should clear any confusion students may still possess at the close of the term.

If these three suggestions for improved student achievement are applied, we hypothesize that student's conceptual understanding of modeling differential equations will greatly improve, in turn leading to the development of correct differential equations and their respective models.

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The Clerical Wife: Medieval Perceptions of Women During the Eleventh- and Twelfth-Century Church Reforms

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To those who promoted the agendas of the eleventh and twelfth century church reforms the cleric's wife embodied those things which inhibited the process of man reaching the holy: lust, defilement, worldliness, and temptation. But to those who demanded that she remain a part of conventional marital structures and sacred traditions, the clerical wife remained an important – and controversial – aspect of clerical culture throughout the Middle Ages. The figure and image of the priest's wife has eluded historians for generations, as her presence as an important component of the controversy surrounding the heightened enforcement of clerical celibacy throughout the eleventh and twelfth centuries – and beyond – was not prominent in the writings of popes, reformers, or the medieval laity. Perhaps this is why modern historians have not carefully examined the figure of the clerical wife, as ecclesiastical canons, decrees, letters, and *vitae* sharply point to her regular absence. It is within these absences, silences, and scarce references that the clerical wife is constructed, and it is her absence in these texts that speak strongly to her position as significant in medieval society.

The image of the clerical wife slipped between classifications defined by ecclesiastical traditions and norms, and through the polemical writings of established clergy and church reformers, to become almost non-existent within the scope of medieval history. Her role was not that of the pious laywomen, nor was she a part of the acutely religious culture of monasticism; rather, the life of the clerical wife was intertwined with aspects of holiness and cleanliness, as well as secularity and impurity. The medieval clerical wife embodied the ideal of a "new" religious figure, not set apart from the world of temporality, nor strictly assimilated into the world of the holy, but who instead existed in both, thereby defying conceptions of religious proscriptions that bound medieval women into specific roles and lifestyles. Because of this, the image of the clerical wife remained obscured, as ecclesiastical ideology and negative rhetorical attacks towards women attached to clerical figures peaked during the eleventh and twelfth centuries. The conceptions of clerical wives as motivated seducers, thieves of the Christian faith, and contenders to the traditional, male hierarchy of the church proposed by reformists parlayed into ecclesiastical attempts to enforce clerical chastity, but also met with resistance from clergy and their wives who demanded legalized

marriages and recognized legitimacy for their children, and who attempted to construct an image of the clerical wife as a beneficial contributor to both clergy and the Christian community.

The clerical wife appeared alongside her husband during the onset of Christianity and remained by his side for almost a millennium after. Growing from humble roots, the clericalconjugal couple eventually faced drastic changes whereby their life-style was condemned and family unit broken, as church authorities attempted to redefine Christianity's own teachings, practices, and theology. Although canons forbidding clerics of certain offices to marry appeared much earlier, the church reforms of the eleventh and twelfth centuries enforced "a vow of celibacy . . .[as] a requirement for ordination to all of the higher positions in the church's clerical hierarchy."² These earlier canons demanded sexual abstinence from married clerics once they were ordained, and prohibited priests and other clergy to marry upon entrance to orders. As such, these canons were often merely repeated in later councils. However, the Lateran Council of 1059 pushed a new agenda in an attempt to smother any illicit sexuality of priests, by forbidding anyone to "hear the mass of a priest who, he knows for certain, keeps a concubine or has a woman living with him."3 Later in 1074, a Roman council held by Pope Gregory VII stated that married clergy were forbidden to say mass and perform other clerical duties, and that if they refused to obey "the people shall refuse to receive their ministrations, in order that those who disregard the love of God and the dignity of their office may be brought to their senses through feeling the shame of the world and the reproof of the people." In later councils, clerics were forbidden to live with any women except "mother, sister, or aunt, or any such person concerning whom no suspicion could arise." Higher-ranking clergy who retained wives or concubines were to be expelled from their office and cut off from any ecclesiastical benefits, and it was also again decreed, "masses celebrated by members of the clergy who have wives or concubines are not to be attended by anyone."6

¹ The Council of Nicaea held in 325 decreed, "all members of the clergy are forbidden to dwell with any woman, except a mother, sister, or aunt," although it is widely believed that clergy did not really abide by this canon throughout the early Middle Ages, and even during the so-called "Gregorian" church reforms of the eleventh and twelfth centuries. For more information see, "The First Council of Nicaea," 2003, http://www.newadvent.org/cathen/11044a.htm (24 April 2004).

² James A. Brundage, "Sex and Canon Law," in *Handbook of Medieval Sexuality* (New York: Garland Publishing, 1996), 36.

³ "The Canons of the Lateran Council of 1059," n.d., http://lib329.bham.ac.uk/coreRes/papacy/document/doc_207.htm#title (24 April 2004).

⁴ "Gregory VII: Simony and Celibacy 1074," January 1996, < http://www.fordham.edu/halsall/source/g7-reform1.html> (24 April 2004).

⁵ "The Canons of the First Lateran Council, 1123," November 1996, http://www.fordham.edu/halsall/basis/lateran1.html (24 April 2004). CF the Council of Nicaea in 325.

⁶ "The Canons of the Second Lateran Council, 1139," November 1996, http://www.fordham.edu/halsall/

Justification for the noncompliance of the laity to unchaste clergy and even removal of priests or other clerics from office who married, kept concubines, or frequented brothels was rooted in the canonical and biblical doctrine of the church. Correspondingly, the concept of original sin, and therefore the inherent minority status of women, played a crucial role in the depiction of women, and one that had endured for centuries. The description provided by clerical authors of woman as Eve – a temptress – was supported by the notion that a woman "was not a mere pawn, but an active, negative force, a source of disorder in society: she enticed men into the material realm of sin just as Eve had enticed Adam." Due to this type of rhetoric, women became portrayed as "active" tempters, propelled by their own sexual desire, and were "represented [as] the more physically oriented aspect of human nature, and man . . . the more rational aspect."8 Displays of outward sexual licentiousness and irrationality in public among married women led to an outcry from Guibert of Nogent who exclaimed around the year 1115:

You know, Lord, how difficult, maybe even impossible, it is to find such chastity in women today . . . in their conduct they display nothing but coarse humor . . . their way of dressing couldn't be further removed from old-fashioned simplicity: their broad sleeves, their skintight tunics . . . any one of them would imagine she has reached the rock bottom of misery if she is presumed to be without a lover.⁹

In the minds of medieval physicians, support for the belief of women as predominately sexual beings stemmed from notions about sexual desire, such as women desiring sexual intercourse "even when pregnant because their psychological faculties retain the pleasurable effects," the two seed theory and "duplex delectatio," and misogynistic literature that deemed a woman as "basically luxuriosa because, no matter how potent the man, her libido cannot be satisfied."12

basis/lateran2.html> (24 April 2004).

⁷ Sharon Farmer, "Persuasive Voices: Clerical Images of Medieval Wives," *Speculum* 61 (1986): 519.

⁹ Guibert of Nogent, A Monk's Confession: The Memoirs of Guibert of Nogent, tans, Paul J. Archambault (University Park: Pennsylvania State University Press, 1996), 36.

¹⁰ John W. Baldwin, "Five Discourses on Desire: Sexuality and Gender in Northern France around 1200," Speculum 66 (1991): 805.

¹¹ Baldwin, 818. The theory of *duplex delectatio* ("double pleasure") suggested that while "the man knows only one pleasure in emitting seed, the woman experiences a duplex delectatio in both the emission of her own seed and the reception of the male's," as medieval doctors believed women emitted their own "seed" during sexual and the intercourse.

12 Ibid.

This perceptibly unsatisfiable sexual appetite of women, especially in regards to priests' wives, provided problems for ecclesiastical authorities who not only consistently tried to regulate the sexual behaviors of the lay population, but who now also tried to regulate and enforce the celibate and spiritually pure state of clergy members. Dyan Elliot asserts "the establishment of clerical celibacy as a mark of both difference and superiority was central to [the reform] . . . [and] these ends were, in part, achieved by a remarkable spate of pollution-laden rhetoric unequaled in the previous history of the western church." Ordering clergy to obey canons and decrees against marriage, concubinage, and fornication only went so far in enforcing the ideals of church authorities. But by attacking clerical wives as disgraces and polluters of both the clerical person and office, reformers were able to confront misbehaving clergy from a new platform. The classic characterization of femininity encompassing only two models – the Virgin Mary and Eve – provided ample material to criticize clerical wives, since these women embodied neither the characteristics of Mary nor Eve:

the animals perceived as abominations in the Book of Leviticus are precisely those creatures that transgress against apprehended divisions among species: things that live in the sea, but crawl; animals with cloven feet that refuse to chew their cud like the "clean" animals of the flock. The priest's wife is a vivid representation of this kind of anomaly – numerically squared and historically writ large – precisely because her mixed, hybrid, "impossible" status is ambiguous in a way that reveals the seams in classificatory categories. At a time when reformers were insisting on a strict division between clergy and laity, she defies both categories ¹⁴

But how many clerics actually believed in the Mary-Eve dichotomy? And how far reaching were celibacy laws and to what extent were these laws actually enforced? Ideologically, the most powerful way in which church authorities could enact a reform agenda was through ecclesiastical legislation, particularly legislation that was practical and could be physically enforced. The canon that allowed the boycotting of priests who married or kept women in their household who could cause suspicion, declared under Pope Nicholas II in 1059, enabled a practical solution to clergy who did not abide to earlier decrees designed to end clerical marriage and concubinage. But by far one

¹⁴ Elliot, *Fallen Bodies*, 83.

¹³ Dyan Elliot, *Fallen Bodies: Pollution, Sexuality, and Demonology in the Middle Ages* (Philadelphia: University of Pennsylvania Press, 1999), 82.

of the most widely, although not altogether persuasive, tools reformers utilized was correspondence in the form of letters between clerics of all ordinations. "Letters in the classical and medieval worlds were neither strictly private communications nor public writings," therefore, letters were potentially read out loud to the recipient or perhaps to a group of people as was the case of Gregory VII who wrote to the clergy and laity of the diocese of Constance in late 1075 about the lack of enforcement in regards to simony and clerical celibacy on the part of Bishop Otto, and insisted:

by apostolic authority we charge all of you, both greater and lesser, who stand by God and St. Peter, that if he [Otto] is determined to continue in his obduracy you should show him neither respect nor obedience . . . For if, as we have often said already, he is determined to resist apostolic precepts, we so absolve you by St. Peter's authority from every yoke of subjection to him that, even if any of you is bound to him by the obligation of an oath, for so long as he is a rebel against God and the apostolic see you are bound to pay him no fealty.¹⁶

Gregory VII strove to parlay his letter into restructuring social relationships between by parishioners and clergy in a specific diocese. Registers, histories, and other writings not only captured the correspondence of those who sought to enforce clerical chastity, but also captured the opinions, and, in some instances, blatant attitudes and actions of those who resisted against these changes. Episodes of physical aggression undertaken by bishops or archbishops in attempts to enforce celibacy legislation also were recorded in some medieval sources. One such incident involved the archbishop of Rouen, Geoffrey, who in 1119 upon his return from a council in Reims, gathered his clergy together and declared that all must cease living with women, and also sever relations with their wives and children under penalty of excommunication.¹⁷ The clergy of Rouen, however, complained to the archbishop and refused to accept papal legislation regarding clerical celibacy. In retaliation for their disobedience, an "outspoken rebel" cleric named Albert the Eloquent was imprisoned without any charge of crime and without any kind of legal preceding. Dumbfounded,

¹⁵ Robert of Arbrissel, *Robert of Arbrissel: A Medieval Religious Life*, trans. Bruce L. Venarde (Washington, D.C.: The Catholic University of America Press, 2003), 89.

¹⁶ H.E.J. Cowdrey, ed. and trans, *The Epistolae Vagantes of Pope Gregory VII* (Oxford: Clarendon Press, 1972), 25.

Anne Llewellyn Barstow, Married Priests and the Reforming Papacy: The Eleventh Century Debates
 (New York: The Edwin Mellen Press, 1982), 95.
 Ibid.

the priests prepared to defend themselves, lest they be taken away as well. In response, Orderic Vitalis wrote that Geoffrey sent in armed retainers who:

rushed straight into the church with staffs and weapons and began to lay about them irreverently in the throng of clergy who were talking together. Some of the clergy, still clad in their albs, rushed through the muddy lanes of the city to their lodgings; others, however, snatching up any staffs or stones they happened to find there tried to fight back and, driving the wavering guard right back to the archbishop's private apartment, pursued them violently. The retainers, ashamed at having fled defeated before a band of unarmed clergy, grew angry and immediately enlisted the help of the cooks and bakers and attendants who were at hand, and retaliated by sacrilegiously renewing battle in the holy sanctuary. They struck or jostled or injured in some other way all, innocent or guilty, whom they could find in church and cemetery.¹⁹

Orderic also reported that while this violence went on:

some other mature and pious old priests were waiting in the consecrated building . . . the crazy servants [the recruited laymen] rushed at them blindly, heaped abuse on them and only at the last moment restrained their hands from slaughter because the priests fell on their knees weeping and begged for mercy. The moment they were released they fled as fast as possible from the city . . . [and] carry[ed] back alarming reports to their parishioners and concubines, and showing the wounds and livid bruises on their bodies as proof of their words.20

Physical enforcement of clerical celibacy was but one tactic ecclesiastical authorities used to implement reform,²¹ as other letters abound in this period regarding additional measures. The archbishop Lanfranc of Canterbury wrote that proper penance for a priest should include

¹⁹ Orderic Vitalis, *The Ecclesiastical History*, ed. and trans. by Marjorie Chibnall (Oxford: Clarendon Press, 1972), 6:293.

²⁰ Ibid.

²¹ Although physical expressions of disapproval and defiance on the part of clerics often turned violent in specific and concentrated areas of northwestern Europe. See James A. Brundage, Law, Sex, and Christian Society in Medieval Europe (Chicago: University of Chicago Press, 1987), 220-221; Orderic Vitalis, Ecclesiastical History, 2:200.

maintaining a celibate state,²² that a married man improperly ordained a deacon be stripped of office,²³ and also wrote in support of a fellow archbishop who was at odds with his own archbishopric.²⁴ Many letters strongly address proper conduct and punishments for priests, provide answers to questions posed by other clerics, and suggestions for handling volatile situations.

Attempts to encourage priests and other clerics to chastity proved easier to decree than to actually enforce. Admonishments from archbishops, bishops, and secular rulers urged reformers not to waver in implementing reform legislation among their clergy, such as Duke William of Normandy in 1080 who "criticized his bishops for not enforcing celibacy and warned that they must cease collecting cullagium, the 'tax' married priests were forced to pay in order to live with their wives."25 However, reservations about enforcing church legislation on the part of clerical authorities and proponents of reform were not unfounded. Again in the archbishopric of Rouen, Archbishop John (d. 1079) "led a merciless campaign against vice . . . For ten years he fulfilled his duties as metropolitan with courage and thoroughness, continuously striving to separate immoral priests from their mistresses."26 However, when John attempted to enforce canons from the 1064 Council of Lisieux dealing with clerical marriage and concubinage during the Council of Rouen in 1072, he was stoned by his clergy.²⁷ In 1074, "when the Bishop [Josfried] of Paris told his priests that they must give up their wives and children, they drove him from the church with jeers and blows, and he found it necessary to take refuge with the royal family in order to escape the wrath of his outraged clerics."²⁸ And in 1077, Bishop Josfried learned from Gregory VII that "the citizens of Cambrai have delivered a man to the flames because he had ventured to say that simoniacs and fornicating priests ought not to celebrate masses and that their ministration ought in no way to be accepted."29

Other protests and demonstrations against clerical celibacy were not only led by and acted out by clergy, but also by their wives and other supporters. According to his *vita* composed some time after 1131, while in Normandy around the first quarter of the twelfth century, Bernard of Tiron preached to an assembly of priests not to marry or fornicate with their wives. However, fearing

²² Lanfranc Archbishop of Canterbury, *The Letters of Lanfranc Archbishop of Canterbury*, ed. and trans. Helen Clover and Margaret Gibson (Oxford: Clarendon Press, 1979), 109.

²³ Ibid, 139.

²⁴ Ibid, 135.

²⁵ Barstow, 88-89.

²⁶ Orderic Vitalis, 2:200.; see especially note 5.

²⁷ Ibid

²⁸ Brundage, Law, Sex, and Christian Society, 221. Bishop Josfried was the chancellor of King Philip I.

²⁹ H.E.J. Cowdrey, *The Register of Pope Gregory VII*, 1075-1085: An English Translation (Oxford: Oxford University Press, 2002), 231.

separation from their husbands, the priest's wives gathered with "their allies to thwart him," and the priests also planned to ambush Bernard in order to stop his preaching.

If while physical violence and bloodshed were extreme outcomes from an outraged clergy, others expressed their frustration through letters and other writings, such as poems:

Priests who lack a girl to cherish
Won't be mindful lest they perish.
They will take whom'er they find
Married, single – never mind!³¹

Written shortly after the Fourth Lateran Council in 1215 – well over a century after the "Gregorian reforms" of the late eleventh century – an anonymous poet laments the future priests, who, he predicts, will commit fornication and adultery at a higher rate than their predecessors because of the denouncement and illegal standing of clerical marriage. The tone of the anonymous poet reverberated with earlier authors and critics. The Anonymous of York explained that defining marriage as illegal for clerics would propel unchaste clerics to commit more serious crimes. He reasoned:

The apostle laid it down that "a bishop should be the husband of one wife." He would hardly have made this ruling . . . if it were adultery, as some assert, for a bishop to have at one time both a wife and a church – two wives, so to speak . . . For Holy Church is not the priest's wife, not *his* bride, but Christ's.³²

Bishop Ulric of Imola wrote to Pope Nicholas II in 1060 explaining that when clerics are not allowed to marry "[they] do not hesitate to make use of other men's wives (we weep to tell it), and rage in unspeakable evils."³³ He also defended clerical marriage as biblically legal, using the same

³⁰ Geoffrey the Fat, *Vita beati Bernardi fundatoris congregationis de Tironio in Gallia*, PL 172 (Paris, 1854).

³¹ Brundage, Law, Sex, and Christian Society, 402.

³² C.N.L. Brooke, "Gregorian Reform in Action: Clerical Marriage in England, 1050-1200," *Cambridge Historical Journal* 12 (1956): 14.

³³ Barstow, 111. Historians differ on whether the *Rescript* of Bishop Ulric was written by Bishop Ulric of Imola (1053-1063) or Bishop Ulric of Augsburg (d. 973). See Barstow, 234 n.2, and Brundage, *Law*, *Sex*, *and Christian Society*, 221 n.236.

passages that proponents of clerical celibacy often used in their own writings. Ulric insisted that these passages' original words and interpretations were twisted by reformers for their own ends, especially 1 Corinthians 7:2 ("But because of the temptation to immorality, each man should have his own wife and each woman her own husband") in which the word *laicus* was inserted into the text at the Council of Chelsea in 787, thus narrowing the interpretation.³⁴ Frustrated, Ulric defended clerical marriage with what he considered *original* scripture and insisted, "these [reformers], no doubt, have not rightly understood scripture, since they have pressed its breast so hard that they have drunk blood in place of milk."³⁵

The defense of clerical marriage based on scriptural evidence, as put forth by Ulric, was not the attitude of only one individual. Many critics of reformers' attempts to separate priests and clerics from their wives and children used the argument that clerical marriage was sanctioned by scripture as well as tradition. Even though canons passed much earlier declared, for example, that a cleric could legally have only *one* wife, and those who lived in religious communities could not marry³⁶, only during later church reforms was clerical celibacy strictly imposed upon priests, bishops, and other clerics.

The conception of chastity as the desired state for a clergyman was part of a growing trend across Europe beginning in the Early Middle Ages and through the Late Middle Ages that continuously emphasized the special and elevated status of clergy over the laity. "There was no sudden break with the earlier custom of married clergy, but instead a gradual accumulation of rulings sacralizing the clergy," which transformed the role of the priest from a man among the laity, to a man apart from the laity, who was socialized to recognize the importance of his specific and sacred purpose. Thus, "the old ideas of a pastoral ministry, of voluntary chastity, [and] of an intermingling of sacred and secular values in the sacraments were challenged." 38

Sacerdotal ministry began to outweigh pastoral ministry as the image of the medieval priest changed from that of quasi-layman to exclusive mediator between God and man. In lieu of this new social standing, ecclesiastical authorities proposed that because priests provided such a sacred part of Christian ritual, priests should therefore not dabble in banal lay behavior. Instead, the priest should

³⁴ Ibid.

³⁵ Ibid. "The *Rescript* of Bishop Ulric was formally condemned by the Synod of Rome in 1079, and the arguments of other adversaries of the celibacy rule were either ignored or dismissed as irrelevant by the reforming party." Brundage, *Law, Sex, and Christian Society*, 221-222.

³⁶ Brundage, "Sex and Canons Law," 36.

Barstow, 23.

³⁸ Barstow, 29.

be recognized among other men as purified from sin, and living in a state that is acceptable to God, who, theologically, ministered through the spirit and body of the priest.

This growing notion of ritual and purity prompted church officials to reconsider earlier decrees that stated that married priests could legally be ordained, but once ordained had to refrain from sexual intercourse with their wives.³⁹ Instead, stricter legislation surrounding the sexual practices of clergy continued to evolve throughout the tenth, eleventh, and twelfth centuries. "This new asceticism created innumerable personal crises, not only for priests and other clerics, but also for their wives, children, families, and parishioners. Reformers demanded that married clergymen eject wives and children from their homes and embrace a life of celibacy unencumbered by carnal temptations and the distractions of family life."⁴⁰

In order for clergy to fully embrace a sinless life, church authorities saw it necessary to cut off clergy from their secular families – thus dissolving relations with the priest's wife, and keeping the priest free from defilement from sexual intercourse. According to reformers, association and sexual encounters with women not only affected a priest personally, but also affected his relationship with God, and therefore God's relationship with a priest's community of believers. The reformer Peter Damian wrote pointedly to fornicating priests, "What business have you to handle the body of Christ, when by wallowing in the allurements of the flesh you have become a member of antichrist? . . . Since you burn with this passionate desire, how can you be so bold, how can you dare approach the sacred altar?" Thus, reformers asserted that the "tainted" sacrament resulted in a chain reaction of problems that placed the salvation of everyone who received the host from the hands of a fornicating priest in peril. Therefore, the restrictions imposed by such popes as Nicholas II and Gregory VII against taking communion from priests who were known fornicators were necessary in the eyes of the church to prevent the spiritual slaughter of innocent, and perhaps unknowing Christians. And women who consorted sexually with clerics only added to the carnage, as "the most frequently avowed reason for suppressing the clerical wife was that her sexual presence polluted the minister of the altar,"42 and therefore soiled the sacredness of the priest's body, office, and flock. Caesarius of Heisterbach recounted the story of a priest named Adolph who, when

³⁹ Paul Beaudette, "In the World But Not of It": Clerical Celibacy as a Symbol of the Medieval Church," in *Medieval Purity and Piety: Essays on Medieval Clerical Celibacy and Religious Reform*, (New York: Garland Publishing, 1998), 27.

⁴⁰ Brundage, "Sex and Canon Law," 36.

⁴¹ Peter Damian, "Letters 31-60," in *The Fathers of the Church*, trans. Owen J. Blum (Washington, D.C.: Catholic University of America Press, 1989), 10-11.

⁴² Elliot, Fallen Bodies, 83.

celebrating mass, was shocked to see visions of a nursing Mary, a lamb, and the crucified Christ in the elevated host. "When he saw this, the priest was terrified and stood for a long time thinking whether he ought to stop there, or finish the office . . . and when the congregation wondered at the delay, he went up into the pulpit and told the people the vision with many tears." Ceasarius comments, "And I do not wonder that [he] was not able to look upon Him so clearly and so joyfully whom he daily sacrificed and received to his own condemnation. For he lived with a concubine."

Fear of women's sexuality, or women's "polluted" bodies, was only one position offered by polemists as to why women should not marry nor engage sexually with clergy. The idea of physical, gendered space between women and church property and women and clergy, poses an interesting perspective on the perceived role or intentions of the cleric's wife. Jane Tibbetts Schulenburg proposes, "the adoption of gender based spatial proscriptions can be seen as an indirect index of ecclesiastical authority over women: they embody underlying values/attitudes and fears of the church hierarchy towards female sexuality and the perceived disruptive nature and 'uncontainability' of women."45 Damian spoke directly to these fears of a spiritual and social disruption through his personification of women as enemies, waiting for opportune times to launch attacks, and also as stinging and biting insects or beasts who inject venom and painfully murder their victims - the bodies and spirits of clergymen. 46 However, reformers not only spoke to fears regarding the pure state of clergy, but also to the pure and healthy state of the entire church body – the community of Christian believers, the body of Christ. According to Amy G. Remensynder, the actions of unchaste priests endangered the "peace which bound Christians together to form one mystical-social body, one church. This peace was engendered by the bonds of charity between human beings."⁴⁷ Since peace made up the essence of Christian bonds, priests' wives disrupted this peace, and therefore could figuratively topple the body of Christ.

However, reformers also pointed to the fact that the body could not topple all at once, but that the impurity of the women who enticed clerics acted as a sickness that slowly infected the head,

⁴³ Caesarius of Heisterbach, *The Dialogue on Miracles*, trans. H. von E. Scott and C.C. Swinton Bland (New York: Harcourt, Brace and Company, 1929), 2:110.

⁴⁴ Ibid

⁴⁵ Jane Tibbetts Schulenburg, "Gender, Celibacy, and Proscriptions of Sacred Space: Symbol and Practice," in *Medieval Purity and Piety: Essays on Medieval Clerical Celibacy and Religious Reform* (New York: Garland Publishing, Inc., 1998), 354.

⁴⁶ Elliot, *Fallen Bodies*, 102.

⁴⁷ Amy G. Remensnyder, "Pollution, Purity and Peace: An Aspect of Social Reform between the Late Tenth Century and 1076," in *The Peace of God: Social Violence and Religious Response in France around the Year 1000* (Ithaca: Cornell University Press, 1992), 294.

limbs, and eventually the whole body. Again, Peter Damian described the situation, using epidemiological terms, as an "epidemic," and insisted, "this disease is spreading like a cancer, and its poisonous breed will reach out endlessly unless its evil growth is cut off by the scythe of the gospel," and also charged "through [these women], therefore, the devil devours his elect food, while he tears the very holy members of the church with his teeth . . . and when he joins [the priests] to [their sexual partners], he transposes [the priests] into his own guts as it were transferring them." Therefore, women's sexuality acted as a conduit for evil to snatch away the sacredness of Christianity, in essence "a kind of rape of the altar in the doubling meaning of the word *rapier* – a sexual crime against the animate offering to God, the priest; and a theft perpetrated against the Christian community at large." ⁵¹

However, as mentioned before, many priests and clerics refused to accept these new legislations and perceptions of women, which they saw as contrary to scriptural law and cultural tradition. Instead, some clerics began to advocate for the church to recognize the validity of their marriages, as well as legitimacy for their children. Priests and clerics reasoned that if they could not legally participate in matrimony, that clerics would indulge in other, more serious elicit activities.

This fear would seem to be borne out in French fabliaux from the twelfth and earlier thirteenth centuries recounted many stories of lewd and lustful priests who actively looked for sexual encounters. In the tale of *Estormi*, three lusty priests individually offered a woman, who had fallen into extreme poverty, money in exchange for sexual favors. Having told her husband, together the woman and man scheme to murder the priests individually but to profit financially from the clerics' sexual appetite. Each of the three deceived priests came over to the woman's house at different times, each giving the woman money, but just as they were expecting to receive their requests, the woman's husband killed each one with a cudgel.⁵² Another fabliau entitled *Aloul*, related the adventures of a lewd priest who wooed a beautiful woman who was resentful of her suspicious husband. Tired of her situation, the woman went out to her orchard early one morning where she encountered her neighboring priest who cunningly devised a way to have sex with her, and thus, to become her lover.⁵³ Other fabliaux tell of a priest who is castrated for seducing the wife of a crucifix

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⁴⁸ Damian, 4.

Damian, 12.

⁵⁰ Elliot, Fallen Bodies, 102.

⁵¹ Elliot, Fallen Bodies, 102-103.

⁵² Raymond Eichman and John DuVal, eds. and trans., *The French Fabliau: B.N. MS. 837* (New York: Garland Publishing, 1984), 1:3-27.

⁵³ Ibid, 1:165-167.

craftsman⁵⁴, a priest who hates the laity, is greedy, and keeps a wife⁵⁵, and a priest who "preys on his parishioners"⁵⁶ for his own sexual pleasure.

In *The Priest Who Peeked*, the parish priest is in love with his parishioner's wife and goes to her house to tell her. Peering through a hole in the front door, the priest sees that the man is eating dinner with his wife. However, the priest convinces the peasant man that he does not see him eating dinner, but instead having sex with his wife. The peasant refuses these accusations, and invites the priest inside to eat. However, the priest persuades the peasant to trade him places so that the peasant can see what he saw through the door. Agreeing to this, the peasant goes outside and looks through the hole in the door, only to see the priest raping his wife:

"May God Almighty help you, Sir,"

The peasant called, "Is this a joke?"

The parson turned his head and spoke:

"No, I'm not joking. What's the matter?

Don't you see: I have your platter.

I'm eating supper at your table."

"Lord, this is like a dream or fable.

If I weren't hearing it from you,

I never would believe it true

That you aren't [having sex] with my wife."

"I'm not, Sir! Hush! As God's my life,

That's what I thought I saw you do."

The peasant said, "I guess that's true." 57

⁵⁴ Raymond Eichman and John DuVal, eds. and trans., *The French Fabliau: B.N. MS. 837* (New York: Garland Publishing, 1984), 2:63-67.

⁵⁵ John DuVal, trans., *Cuckolds, Clerics*, & *Countrymen: Medieval French Fabliaux* (Fayetteville: University of Arkansas Press, 1982), 15-28.

⁵⁶ Ibid, 7.

⁵⁷ Ibid, 46. The original French provided by the translator is as follows: Et quist chou: "Se Dix vous sequeure,"/Fait li villains, "est che à gas?"/Et li prestres en eslepas/Respont: "Que vous en est avis?/Ne veés vous? Je sui assis/Pour mangier chi à ceste table."/"Par le cuer Dieu, ce samble fable,"/Dist li villains, "ja nel creise,/S'anchois dire nel vous oisce,/Que vous ne foutissiés ma femme."/"Non fach, sire, taisiés; par m'ame,/Austrestel sambloit ore à moi."/Dist li villains: "Bien vous en croi."

The audience's reaction to fabliaux depicting priests as unattached, seducing men most likely "would have been one both of recognition and of shock on hearing of priestly actions totally out of keeping with priestly ideals." The overt anti-clericalism of the fabliaux is interesting in that of a survey of fifty-six tales involving priests, only four treat the priest favorably:

Clearly the ecclesiastics enjoyed the least favor among the fabliaux authors . . . [perhaps] due to the authors' resentment at harsh treatment of assumed heretics in northern France during the thirteenth century by church officials . . . such a view would, of course, imply that the fabliaux are more than entertainment and that they satirize with the intent of reforming abusive conditions.⁵⁹

But why were priests satirized in this manner? Since the majority of priests depicted in the fabliaux were described as lustful, unattached, and greedy, was this a sign of disapproval among the laity of the church's handling of clerical sexuality? Did eleventh- and twelfth-century laymen and women share the same reaction as their fifteenth-century counterparts in Switzerland and some areas of Spain who insisted that their priests marry, "as a safeguard for the virtue of their wives and daughters and as a remedy for the flagitious lives of priests and prelates?" It was reported by his biographer that Bernard of Tiron preached against married and fornicating priests during the twelfth century "with the people cheering him on," while in a poem by Matthew of Vendôme, a lady declared she would rather give herself to a knight than a cleric, because she did not want to sleep around, but wanted to get married, thereby recognizing that "a cleric could do the one, but not the other."

However, accounts of priests' wives, concubines, and families still made their way into medieval records, meaning that, "it was easier to mandate clerical celibacy than it was to turn off basic human drives." Clerical marriage was far from dead even though reformers zealously hoped for its demise, and priests continued to either marry, or procreate with women in their households whom they considered legitimate marriage partners. For example, the Flemish bishop, Henry of

⁵⁸ Ibid, 7.

⁵⁹ Ibid, 8.

⁶⁰ Ibid, 7.

⁶¹ Geoffrey the Fat, Vita beati Bernardi fundatoris congregationis de Tironio in Gallia, trans. J.S. Ott, PL 172. 1363-1446.

⁶² Brundage, Law, Sex, and Christian Society, 222.

⁶³ James A. Brundage, "Sin, Crime, and the Pleasures of the Flesh: The Medieval Church Judges Sexual Offences," in *The Medieval World* (London: Routledge, 2001), 298.

Gelders, "openly bragged of his sexual prowess and claimed to have sired fourteen sons in twenty-two months"⁶⁴ However, reformers continued to condemn these acts and also sought an attack on the sexual act itself between clergy and women, equating sexual intercourse with incest. Peter Damian admonished:

Cleary, if a father incestuously seduces his daughter, he will be promptly excommunicated, forbidden communion, and either sent to prison or exiled. How much worse, therefore, should be your degradation, since you had no fear of perishing with your daughter, not indeed in the flesh, which would be bad enough, but rather with your spiritual daughter? . . . since you are the husband, the spouse of your church, symbolized by the ring of your betrothal and the staff of your mandate, all who are reborn in her by the sacrament of baptism must be ascribed to you as your children. Therefore, if you commit incest with your spiritual daughter, how in good conscience do you dare perform the mystery of the Lord's body?⁶⁵

Therefore, clergy and their wives or concubines were not only committing crimes against the Christian church, but were also committing crimes against nature, by perverting the instinctual (and spiritual) bond between father and daughter. Elsewhere in his writings, Damian also quoted the book of Matthew ("For an evil tree cannot bear good fruit" to describe the undesirable outcomes (i.e., offspring) of incestuous breeding.

Growing concern regarding the offspring of clerics also worried reformers and ecclesiastical authorities. Many authors insisted that clerics should divorce their wives and sever ties with their concubines, prostitutes, lovers, and children, while others advocated that the church should enslave the ex-wives of clerics as well as their children.⁶⁷ Although clerics more than likely considered the children they fathered legitimate, church reformers and authorities moved quickly to stem these presumptions. The council of Bourges in 1031 created two canons which "prohibited the entrance into orders of any son of a cleric . . . Here children of the clergy were assimilated not only to *servi*

⁶⁴ Brundage, "Sin, Crime, and The Pleasures of the Flesh," 299.

⁶⁵ Damian, 10.

⁶⁶ Damian, 398

⁶⁷ Brundage, "Sin, Crime, and The Pleasures of the Flesh," 299.

and *coliberti* but to all children not born from a 'legitimate union' who 'are called cursed seed in the Scriptures and who, according to secular law, can neither inherit nor give legal testimony."⁶⁸

But why were reformers so concerned about the children of clerics? Canon 16 of the Second Lateran Council stated:

It is beyond doubt that ecclesiastical honors are bestowed not in consideration of blood relationship but of merit . . . Wherefore, in virtue of our Apostolic authority we forbid that anyone appropriate or presume to demand on the plea of hereditary right churches, prebends, deaneries, chaplaincies, or any ecclesiastical offices.⁶⁹

The overlying intentions of church authorities were clear. Sons of clerics had undoubtedly at one point or another claimed hereditary rights to ecclesiastical lands, offices, or other benefits, and some clerical fathers, more than likely, either granted or tried to grant these claims. "Sacerdotal dynasties were common, almost the norm, in some regions of eleventh-century Europe, and had been commonplace for centuries." However, ecclesiastical authorities did not want Christendom carved up and, in essence, "ruled" by hereditary lines of churchmen, nor did the church want to lose land and money to dynastic clerical families.⁷¹

The uneasiness of church officials towards clerical children was also attributed to the fact that clerics, especially those who were married, had to support their families. Therefore tithes or other gifts given to local priests or clerics could potentially end up in the mouths and stomachs of clerical offspring, instead of in the coffers of local parishes or sees. Because of this, "married clergy were considered to plunder the church" as "these bishops 'were not pastors, but instead mercenaries (John 1:12-13), who were not watching over the bodies of their sheep, but were taking their wool and sucking their milk (Ezek. 34:2-3) and were seeking their own gain and not that of

⁶⁸ Remensnyder, 288.

⁶⁹ "The Canons of the Second Lateran Council, 1139," November 1996, http://www.fordham.edu/halsall/basis/lateran2.html (24 April 2004).

⁷⁰ Brundage, Law, Sex, and Christian Society, 215.

⁷¹ "The Canons of the Second Lateran Council, 1139," November 1996, http://www.fordham.edu/halsall/basis/lateran2.html (24 April 2004). "Owing to the license and venality of the times, episcopal sees were frequently usurped and given as fiefs to soldiers in recompense for services. Once in such hands, they were treated as property which descended by hereditary right from father to son. Likewise many of the clergy, bishops and priests, who had taken wives and begotten children, transmitted their benefices to their offspring."

⁷² Remensnyder, 293.

Jesus Christ."⁷³ How did this effect the view of the local Christian community who faithfully gave tithes, alms, and gifts to the church, but which were diverted to sustain a priest's family?⁷⁴

Even though canons and ecclesiastical laws decreed by church authorities directly influenced the decisions and rights of clerical offspring, they also affected the influences of the mothers of these children. Therefore, by stemming the rights of clerical offspring, church authorities were also stemming the influences of women involved with clergy, because these children, born out of unlawful, condemned relationships between women and clergy, directly contested the authority of church hierarchy. Hence, children of clergy were products of disobedient servants to the church, as "ecclesiastical definitions of valid sexual activity shaped the medieval definition of illegitimacy." In essence, "illegitimacy was thus used as a lever to define valid marriage," and because the marriage between a woman and priest would never be considered valid, illegitimacy, therefore, was "a public manifestation of the parents' immorality . . . [and] represented forbidden sexual intercourse."

Because children of clerics represented pollution, opposition to church order, and immorality among the clergy, the condemnation of sexual contact between women and clergy solidified even more. Sexual contact with women not only resulted in the pollution of the altar, and possibly the whole church body, but also in illicit sexual unions producing illegitimate children, and also turned the attention of the minister away from his flock to instead gaze upon his prohibited wife and unlawful children. Thus, sexual association with women produced an "illegitimate, soft, [and] effeminate lot, degenerating from the genuine nobility of the order of priests" – a feminization of the clergy that upset the traditional male hierarchy of the church. This seems to be confirmed by writings such as the *vita* of Geoffrey of Amiens, a reforming cleric who foiled a clerical concubine's attempt to poison him, who is described in very masculine terms. The author describes how Geoffrey, "manfully barred disreputable clergy fornicating in impure matrimony not only from his company but also from entering the choir," how he "persisted through everything with the spirit of manly steadfastness," and "battled against the devil and his agents."

⁷³ Remensnyder, 290.

⁷⁴ R.I. Moore, "Family, Community and Cult on the Eve of the Gregorian Reform," *Transactions of the Royal Historical Society* 30 (1980): 62.

⁷⁵ Laura A. Wertheimer, "The Ecclesiastical Construction of Illegitimacy in the Middle Ages" (Ph.D. diss., University of California, Santa Barbara, 2000), 63.

⁷⁶ Ibid, 78.

⁷⁷ Ibid, 104-105.

⁷⁸ Elliot, Fallen Bodies, 105.

⁷⁹ Vita sancti Godefridi auctore Nicolao monacho Suessionensi, ed. Albert Poncelet, Acta sanctorum novembris, collecta digesta illustrata, vol. 3 (66) Brussels: Socios Bollandianos, 1910, pp. 905-44.

In the eyes of church authorities, an effeminate clergy also meant a decline in pastoral and spiritual "fatherly" duties. Peter Damian urged clerics symbolically to "marry a priestly wife from whom he might procreate offspring who will reflect their father's character," meaning a cleric's "marriage" to the church, and also chastised clerics who were spiritually impotent.

But if God so hates sterility in the brute beasts which are offered to him through the ministry of priests, how much more does he disdain it in the priests who offer sacrifice to him? Surely just as offspring in the flesh are required of [the beasts], so priests should propagate holiness in others. Only then will your chastity be approved in the divine gaze, if it is extended by propagation among your clerics.⁸¹

According to Damian, in taking wives or lovers and begetting children, priests and other clerics undermined the spiritual well being of their communities. "The role of spiritual father entailed many of the same obligations as that of a secular father;" however if these roles were not fulfilled then the proper ordering of society was also overturned, as these spiritual "fathers" were neglecting their acknowledged parental roles. The expectation for clerics to act as spiritual fathers towards their flock was undercut by cleric's involvement with women, and although women may not have been directly responsible for the malnourishment of parishioners and other faithful Christians, church officials saw clerical wives as tools that aided the offenses of clerics. Women added carnality and distraction from the realm of the holy and divine, to the world of temporality, where the attention and energy of a priest was transposed from the spiritual concerns of laymen to the immediate physical concerns of his wife or lover and his family. Reformers' propaganda explained how priests' wives and concubines were decorated with jewels and luxurious and ornamented clothing, while the altar was left without jewels and bare, and the priest himself walked about wearing rags for clothes in order to support his wife's expensive tastes.⁸³

Priests, bishops, and other clerics' "open relations with women (uxorati publicae) were public offenses and represented an inversion and perversion of the reverence laymen had for religious

⁸⁰ Damian, 398.

⁸¹ Megan McLaughlin, "Secular and Spiritual Fatherhood in the Eleventh Century," in *Conflicted Identities and Multiple Masculinities: Men in the Medieval West* (New York: Garland Publishing, 1999), 29.

⁸² McLaughlin, 31.

⁸³ Elliot, Fallen Bodies, 121.

women – a turning inside out of proper relations between men and women, clergy and laity."84 In other words, clerics acted like laymen, in that they married or were sexually active, produced children from these relationships, and needed or wanted to support their family:

Many of those who are in bondage to the delights of carnal pleasure long to perpetuate their own memory through their posterity. This they pursue through every waking moment, since they are sure that they will not be wholly dead in this world if they continue their name in a fruitfully surviving progeny.85

Whether or not a cleric's sexual drive was fueled by desires of perpetual life sustained by later generations, sexually promiscuous clergy "contradicted their ordo - and the order of the world."86 "Disruptores, violators, and raptores – from the sixth century onward . . . were the terms employed in narrative sources and conciliar canons to brand those who perturbed the 'peace of the church' . . . [and, among others,] impure clerics were considered to be violators . . . just as were laypeople who infringed any of the peace regulations."87 The blurred lines between what was holy and divinely ordered and what was secular and man-made exacted pressures on ecclesiastical authorities to retain traditional societal structures. According to Sharon Farmer, "both scholastic and monastic authors [around the year 1200] began to recognize the moral and spiritual potential of women's persuasion."88 Although Farmer writes about this persuasiveness in regards to lay women who had the ability to sway their husbands' decisions regarding donations to monasteries and other church benefices, perhaps this theory can also describe the relationships between clerics and their wives:

. . . writers persistently emphasized the ability of women to use spoken language – sweet words and eloquence - to soften men's hearts . . . in their use of speech and sexual enticements to manipulate men the pious wives of the eleventh-, twelfth-, and earlythirteenth-century sources resemble contemporary depictions of Eve, who compelled Adam "to obey her voice rather than the Word of God" . . . Woman is "garrulous" and "induces

Remensnyder, 290.

McLaughlin, 28.

⁸⁶ Remensnyder, 290.

⁸⁷ Remensnyder, 292.

⁸⁸ Farmer, 521.

crime with her . . . voice and hand." Moreover, her tongue is more flexible – "more mobile and given to words" – than is that of the male and it "can be seen to be the seedbed of all evil."⁸⁹

Reformers undoubtedly expressed similar concerns about clerical wives. If a wife possessed the innate ability to sway her lay husband with speech and gestures, how much more could a wife of a priest or other cleric influence her husband who exercised certain responsibilities and privileges within the community at large?

Clerical wives had traditionally remained within the community, even though eleventh and twelfth century reformers wrote with an obvious agenda to categorize women as potentially evil beings, as their ends were targeted at male clerical chastity, and to limit the influence women had in the church through the lives of these men by initially limiting the access of clergy to women. Clerical wives were singled out from among all the problems the church had dealt with regarding clerical spiritual impurities, lust, and the consequences from these actions, and instead were harassed as the root of many "preventable" human vices. While church authorities debated and decreed penalties for clerical wives and their children, such as enslavement to the church, ⁹⁰ punishments for priests who broke canonical law and disobeyed or outright refused to obey church legislation were often minor or merely threatened. Hut it is inevitable that with a campaign which aimed at nothing less than completely purging a male clergy of their female companions, women in general would become the enemy . . . [Thus] clerical wives, not the priests themselves [were presented] as the real transgressors. And yet, even though suppressed and condemned, the priest's wife residing with her priest-husband in his parish was nothing new in the participation of the Christian community during the eleventh and twelfth centuries.

In prior centuries, women had not only been permitted as wives of priests, but were also given special status upon their husband's ordination. "From ancient times she was referred to as *presbyteria* or *sacerdotissa*, and according to some rites even received a distinct garb and special

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⁸⁹ Farmer, 539.

⁹⁰ Brundage, Law, Sex, and Christian Society, 251.

⁹¹ Elliot, *Spiritual Marriage*: *Sexual Abstinence in Medieval Wedlock* (Princeton: Princeton University Press, 1993), 102.

⁹² Ibid.

blessing,"⁹³ and in "the Gallo-Roman church a clerical wife had been required to take a vow of chastity known as a *conversio* – in essence consenting to her husband's ordination:"⁹⁴

Similar arguments were advanced by Innocent I and Gregory I and reinforced by local councils in Italy, Spain, and Gual, where it became common to require the wives of priests to take a vow of chastity at the same time that their husbands did so. One council involved the priests' wives so deeply with their husbands' commitments that they forbade priests' widows to marry again. This was accompanied by a more enforceable vow to occupy separate chambers.⁹⁵

These attitudes toward a married priesthood persisted when Christianity was still in a fledging stage of quickly becoming the dominant religion of Western Europe. Early Christians of the third, fourth, and fifth centuries, still regularly met and worshipped in homes of other Christians, rather than in the stone and decorated parish churches and cathedrals of later centuries. Thus "the congregation was an 'extended family', [sic] . . . and carried out its social services on a one-to-one basis." The ritual of the sacrament and the mystery of transubstantiation had not yet fully gained the renown and sacredness it would later receive and therefore did not yet need the sacred and pure hands of a consecrated and chaste priest. Also, there was no need for a separate and distinct class of men to guide and protect the souls of others as a not fully consecrated minister "earned his living in the community alongside the other congregants, sharing their economic and social problems . . . In this small, struggling cult there was as yet no need or desire for a priestly class, set aside from the other believers. Instead, the laity wanted and accepted pastors who lived as they did." **

The clerical and conjugal couple not only labored beside their lay counterparts in economic and social settings, but also stood as a model for the religious community of what and how married life should appear. As such, "[the priest] and his wife and his children could readily be expected to set a model for the lives of their congregation," since "the village priests and minor clergy were usually married persons, who still slept with their wives [and] . . . were subjected to the same

⁹³ Elliot, Fallen Bodies, 83-84.

⁹⁴ Elliot, *Spiritual Marriage*, 87.

⁹⁵ Jo Ann McNamara, "Chaste Marriage and Clerical Celibacy," in *Sexual Practices and the Medieval Church* (Buffalo: Prometheus Books, 1982), 25.

⁹⁶ Barstow, 20.

⁹⁷ Ibid.

⁹⁸ Ibid, 20-21.

⁹⁹ McNamara, "Chaste Marriage and Clerical Celibacy," 23.

restraints as were the laity."¹⁰⁰ Therefore, married clerical couples were not exempt from the impositions of the church into the sexual lives of its members and had to abide by the same proscriptions as that of lay couples. According to the penitentials, couples could not engage in sexual intercourse if they were not married, if the woman was menstruating, pregnant, or nursing, if it was during Lent, Advent, Whitsun, or Easter week, or on a feast day, fast day, Sunday, Wednesday, Friday, or Saturday, and also if it was daylight, if the couple was naked or in a church, and if the couple did not want a child.¹⁰¹

Thus, married clerical couples were not exclusively treated nor elevated to a heightened status in the theology of church authorities. However, clerical couples undoubtedly held esteem within their own communities as models of righteousness and healthy marriages. Providing congregants with not only spiritual guidance, but also practical and experienced relationship advice and skills, clerical couples were more adept at providing nurturance for the whole person, rather than strictly focusing on a person's spirituality and salvation. Clerical couples more than likely also had the ability to sway other community members in the way in which children were raised and instructed, as these families could provide evidence of healthy marriages and family structures. Undoubtedly, though, the actual circumstances of clerical couples probably did not live up to idealistic expectations. For example, in eleventh-century Anglo-Saxon England, enforcement of celibacy legislation was apparently so lax that some priests took more than one wife, or changed sexual partners without actually marrying them. However, there were also reports of great fidelity among priest's wives who thought of their marriage as "a solemn engagement, fortified with all legal provisions and religious rites, but which [reformers] pronounce[d] a frivolous and meaningless ceremony."

Even though the Second Lateran Council in 1139 decreed that the marriages of priests be dissolved, and both husband and wife do penance, lest priests "be deprived of their clerical positions and benefices," many couples refused to break the oath of marriage, citing the lasting and biblically sanctioned bond between husband and wife. It was not only out of resistance that clerical couples refuse to separate, but also out of their own beliefs and interpretations of scripture.

¹⁰⁰ Peter Brown, *The Body and Society: Men, Women and Sexual Renunciation in Early Christianity* (New York: Columbia University Press, 1988), 256.

¹⁰¹ Brundage, Law, Sex, and Christian Society, 152-175.

¹⁰² Henry C. Lea, *The History of Sacerdotal Celibacy in the Christian Church* (New York: Russell & Russell, 1957), 138.

¹⁰³ Ibid, 163.

¹⁰⁴ Brundage, Law, Sex, and Christian Society, 220.

However, reformers continuously slandered those who did not share in their beliefs, and related instances of divine intervention into the lives and deaths of fornicating priests and their wives:

A zealous admirer of Gregory relates with pious gratulation, as indubitable evidence of divine vengeance, how, maddened by their[priest's wives] wrongs, some of them openly committed suicide, while others were found dead in the beds which they had sought in perfect health; and this being proof of their possession by the devil, they were denied Christian sepulture. 105

But still there were episodes and cases of priests and their wives who were not seemingly punished by a vengeful God. Priest's wives continued to thrive as a substantial part of the Christian community up until the dramatic legislation of the mid-eleventh-century when clerical purity was heavily emphasized and influenced by the ascetic lifestyles of hermit-clerics and transient preachers.

Even though condemned by church councils, the priest's wife continued to play her role as supporter of her religious husband, good mother, and even possibly as an assistant to her husband in his priestly activities. As mentioned before, in early Christianity, upon ordination of her husband, the priest's wife also received a special blessing and clothes, thereby establishing her importance within the functioning of church offices. Some evidence suggests that priest's wives were invested with the office of deaconess, and "it seems safe to assume that many of subsidiary and nonsacramental administrative functions must have fallen on the marital partners of clergymen." 106 Therefore, it seems logical to link the priest's wife with her husband's administrative tasks such as keeping ledgers of expenses, reminding her husband of important meetings with congregants such as home visits, giving last rites, or baptisms, and other scheduled events. It also seems logical to give credit to the priest's wife for the care and maintenance of objects related to the priest's office, such as handling and washing priestly vestments, and altar cloths, sweeping and cleaning the altar area, perhaps washing cups and chalices, and even preparing bread for communion.

In twelfth-century Germany, Geroch, Provost of Reichersberg, reported that "priests' wives [were] assisting their husbands in the ministry of the altar,"107 to the apparent surprise and shock of "the faithful." While seemingly accepted as the norm in previous centuries, priest's wives

¹⁰⁵ Lea, 192.

¹⁰⁶ McNamara, "Chaste Marriage and Clerical Celibacy," 23.

¹⁰⁷ Lea, 268.

¹⁰⁸ Ibid.

persistently began to dwindle as church authorities attempted to regulate and monitor the social and sexual habits of its servants. The zealous and even, at times, radical legislation beginning in the eleventh and eclipsing the twelfth century proved devastating for the clerical wife, suspending her from clerical culture altogether. Damian claimed that clerical marriage was heresy and identified it with Nicolaitism, an obscure first-century sectarian movement among Christians in Ephesus and Pergamon, and also popularized the term among those who refused to abide by celibacy legislation. Damian also popularized "such terms as 'whore' and 'harlot' to describe the wives of priests. Women who had married clerics in good faith, women who were often themselves daughters or granddaughters of priests or bishops, found themselves shorn of social position, driven from their homes, their marriages denounced as immoral from the pulpits, their honor ruined, their families broken, and their commitment to husband and children denounced as scurrilous and sinful."

Amid this legislation, more and more priests were discouraged from taking wives or establishing relationships among women, while priests' wives separated from their husbands either through force, obedience, or fear for their husbands' safety and office. The question remains then, where did the clerical wife go, and how did she live the rest of her life? Shortly after the Synod of Pavia in 1022, Bishop Libentius of Hamburg ordered clerical wives to leave town, and the "ladies promptly resettled in nearby villages, [but] where their husbands continued to visit them periodically." ¹¹³

However, some clerical wives left never to return, but more interestingly, some evidence suggests instances where former priests' wives attached themselves to other clerical figures. In his biography of Robert of Arbrissel, Baudri of Dol reported how Robert did not refuse "unchaste women, concubines, lepers, and the helpless," from joining his community at Fontevraud. According to Bruce L. Venarde, Baudri uses the adjectival form of the word "incestas" to describe "unchaste women," apparently referring to the incestuous relationships of former clerical wives. It is also known that the second abbess of Fontevraud was married before converting fully to the

¹⁰⁹ For an interesting perspective on the continuation of the presence of the clerical wife in Christian culture after the twelfth-century, see Elliot, *Fallen Bodies*, p.107-126 (ch. 5, "Avatars of the Priest's Wife).

¹¹⁰ Brundage, Law, Sex, and Christian Society, 216.

¹¹¹ Ibid.

¹¹² Ibid, 217.

¹¹³ Ibid, 218.

¹¹⁴ Robert of Arbrissel, 18.

¹¹⁵ Ibid, 128 n.53.

religious life, and historians have even suggested that she may have also been a casualty of the reform movement.¹¹⁶

Another piece of interesting evidence from this period also points to the emergence of former clerical wives in the monastic culture of the twelfth-century and beyond. Venarde reports on a very substantial spike in foundations and refoundations of monasteries for women beginning in the early twelfth-century. Venarde writes:

There always were, in the time and space considered here, more women desirous of entry into the religious life than there were places for them . . . What is remarkable is the degree to which women who wanted to enter monastic life were accommodated, especially in the years circa 1080-circa 1170, when the women themselves frequently seized the initiative. 117

Although this evidence is circumstantial, it suggests that what added to the growth and development of new nunneries for women may have been an influx of former clerical wives, who, being forced from their husbands and cast away, attached themselves to either charismatic preachers, such as Robert of Arbrissel, or resettled in nearby monasteries. It also seems likely that with so many women wanting acceptance into a monastic house that new houses were formed to accommodate such large numbers of new women:

Before the early twelfth century, only a tiny faction of papal bulls concerned houses of nuns in Western Christendom. The repertory of Philippe Jaffe lists only sixteen bulls addressed to nuns and their houses in the whole tenth century; of over five hundred bulls he sent forth during his thirteen-year pontificate [1073-1085], Gregory VII issued only five . . . The proportion of bulls to or concerning nuns began to rise notably only after about 1120. . . after a great number of nunneries were founded in northwestern [France and England] Europe, appearing to confirm the observation of one historian that "so much papal history now seems more like authority grappling ill-prepared and as best it could with ideas and

¹¹⁶ Ibid, 28. See also Elliot, *Spritual Marriage*, 111 n.71, and also Jacques Dalarun, "Robert d'Arbrissel et les femmes," *Annales ESC* 39 (1984): 1151-1154.

¹¹⁷ Bruce L. Venarde, *Women's Monasticism and Medieval Society: Nunneries in France and England*, 890-1215 (Ithaca: Cornell University Press, 1997), xiii.

inspirations fermenting below." The increased number of papal bulls in the twelfth century reflects new realities – many new nunneries – rather than new (or old) goals. 118

Whether or not former clerical wives fled to old or new monastic houses, the ideal of the clerical wife as put forth by medieval reformers and current historians needs rethinking. Was the clerical wife a "new" religious vocation as yet unseen by modern historians? Were these women who sought intimate relationships with priests and other clerics seeking an alternative avenue to express their own spirituality? Perhaps a spiritual life that was not adorned with narrow rules such as those followed by monastic women, nor a life strictly demarcated by marriage and motherhood? Perhaps the intentions of the medieval clerical wives were to seek lives in which sacred and secular activities could be blended, and one in which the perimeters of femaleness and womanhood, as defined by the church, could be broken.

The figures, lineages, and names of clerical wives appear infrequently in medieval texts, but her presence permeates the words of church reformers like an unspoken taboo. Therefore, it is within these unspoken, yet protruding subtleties that the image of the clerical wife forms. Accepted from the onset as an asset to early Christian clerics, but later proclaimed as a polluter to the clerical office by church reformers, conceptions of the clerical wife also changed among priests and other clerics themselves who either accepted the traditional model of clerical marriage or who avoided it out of obedience to canonical law or fear of suspension of their office. However, the question still remains: did the lay communities of eleventh and twelfth century Europe really care about clerical marriage in the first place? Early Christian communities in the third, fourth, and fifth centuries regarded their community clerics as only an extension of the lay community, rather than adopting lofty notions of clerical superiority and cleanliness that dominated church thinking profoundly beginning in the eleventh century. Instances of laymen and women retaliating against married clergy arise in medieval letters and other writings, but these only represented a fraction of the thousands of lay communities and parishes in Europe. Clearly, a full picture most likely will never completely surface, as medieval records and stories of the lives of common married (and even non-married) clergy do not flesh out the enormous volumes of history penned by medieval writers. However, what was written down and what does survive regarding clerical wives can be used to assess degrees to which how medieval culture regarded this distinct religious figure, even if it cannot be expressed in a purely definitive argument.

¹¹⁸ Ibid, 83.

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Constructs of Freedom and Identity: The Ethnogenesis of the Jamaican Maroons and the Treaties of 1739

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INTRODUCTION

Conceptions of justice and normalcy are both culturally specific and time-bound, but many people, across cultures and throughout time, believe that their standard of justice is universal and objective. Modern Americans writhe in anger and horror discussing the situation of women in the Middle East; indigenous Americans in the fifteenth century were appalled by the European's infrequent bathing and other unhygienic habits. Few issues in the world history, though, provoke the same type of revulsion, judgment, and revisionism as slavery. Slavery, understandably, is a topic connected to great passion and deep-seeded, though often poorly understood, feelings for many modern people. In the New World, people are less than two centuries removed from the experience of slavery; in Africa, where abolition occurred much later, the memories are often only three or four generations distant. In the New World, those who are descended from those formerly enslaved continue to suffer discrimination, prejudice, and the economic deprivations that are the legacy of slavery. Furthermore, the racist institutions that permeate Western culture have failed to provide a sense of history and cultural significance to the descendents of enslaved people. The descendents of the slaveholders, conversely, are conditioned to discuss slavery as a historical phenomenon that, while regrettable, has no ramifications for the modern world.

Of course, slavery continues to shape global societies. As many have argued, capitalism, as it exists today, would not have been possible without slave-centered production. The slave trade has greatly influenced social realities for much of the New World and Africa. In Africa, the slave trade removed millions of productive people from their communities and families, and many millions of others were displaced or killed. In the New World, slaves not only contributed the labor power upon which many societies were founded, but also fashioned new, syncretic cultures that have become, in America and the Caribbean, national cultures. Throughout the New World, the descendents of the enslaved often express hostility and outrage towards Africans and African immigrants, whom they accuse of betraying them.

The rhetoric of perfidy permeates not only African/New World relations, but also relations between two markedly different groups. Within the slave societies of the New World, and in Africa,

people reacted against the condition of enslavement and against the slave trade. The people who reacted against the condition of enslavement and formed autonomous communities wherein the society and culture were organized in terms different from that of the hegemonic society are known as Maroons. Because the Maroons did not rebel against the institutions of racialized slavery generally, but rather worked to secure their own freedom, they are often depicted as traitors by the descendents of enslaved people, or even descendents of slaveholders who are mired in feelings of guilt. Maroons fought not for the end of racialized slavery, or change of any sort within the dominant society, but rather for the agency to create their own society.

The Oxford English Dictionary attributes the earliest use of the term Maroon to Sir Francis Drake, who, in 1626, wrote of "[t]he Symerons (a blacke people, which about eightie yeeres past, fled from the Spaniards their Masters)." This usage supports the assertion of Price and others that the etymology of Maroon is related to the Spanish word *cimarron*, meaning feral cattle. One possible reason for this word evolution is the employment of slaves in hunting wild cattle in the period of Spanish occupation of Jamaica, prior to 1655. More likely, however, the derivation of Maroon from *cimarron* connotes the manner in which the European culture constructed African identity. In many respects, the history of the word "Maroon" is similar in function to the history of the application of the term "chattel" to slaves: both served effectively to dehumanize human beings, thus rendering less cognitively dissonant the practice of human slavery for individual liberty-professing slaveholders. Savetaneous dissonant the practice of human slavery for individual liberty-professing slaveholders.

However the slaveholders endeavored to dehumanize the enslaved, the enslaved were not *tabula rasa* labor units, but had their own culturally constructed notions of community and freedom. In eighteenth-century Jamaica, the disparity between three worldviews, that of the slaveholder, that of the Maroons, and that of the enslaved who remained on the plantations, came into conflict. The British fought against the rebel slaves who lived in the inaccessible interior of the island from the time the British conquered the island from the Spanish in 1655 until they signed peace treaties with the Maroons in 1739. The weapons in these battles were not only military, but also spiritual and psychological. After the signing of the peace treaties and the formal recognition of the Maroon communities as autonomous polities, the Maroons and the still-enslaved conflicted over their differing perceptions of freedom. The still-enslaved continued to flee and rebel, but, increasingly,

¹ Oxford English Dictionary, 2nd ed., s.v. "Maroon."

² Mavis C. Campbell, *The Maroons of Jamaica 1655-1796: A History of Resistance*, *Collaboration, and Betrayal* (Massachusetts: Bergin & Garvey Publishers, Inc., 1988), 1.

³ Oxford English Dictionary, 2nd ed., s.v. "chattel."

they sought equity within the hegemonic society; the Maroons never wanted inclusion in the dominant society, but rather freedom from it.

It is from this conflict that the still-prevailing belief that the Maroons are traitors derives. The Maroons shifted from rebel slaves to rebel slave hunters and killers; even after Emancipation, the Maroons aided the British in quashing uprisings and protests. While Britain and its colonies remained a largely feudal society, the notion of socially reciprocal obligations between members of different classes and polities closely matched African views, held by the Maroons, about social duties. Once the British and the still-enslaved adopted a notion of individual rights, however, perceptions of the Maroons changed.

It is within this highly charged climate that any discussion of Maroon ethnogenesis must occur. Sources available today are informed by these widely divergent conceptions of justice and notions of violation of that justice. Some of these perceptions originate from the historical actors, while some originate in twentieth-century and twenty-first-century conceptions like racial consciousness, Pan-Africanism, and Rastafarianism. People, it must be recognized, do not believe or act the same across time and place. Eighteenth-century Jamaican Maroons are not the contemporaries of Marcus Garvey or Bob Marley. The problems they confronted are not the same problems faced by Jamaicans today.

But a comprehension of the problems faced by those who formed the Maroon communities in eighteenth-century Jamaica is crucial to an understanding of the historical basis for modern Jamaican, and those seeking to create national identities in newly-independent nations like Jamaica could learn much from a study of the ethnogenesis of the Jamaican Maroons. Those who left the slavery system to form their own communities faced not only the difficulties of surviving while being pursued by the British military, but also the predicament of forging functional and cohesive communities from diverse, and often not amenable, constituents. Within the brief span of one or two generations, rebellious Asante, Fante, Ga, Igbo, Congo, and Madagascan transformed into the Jamaican Maroons. This process was not largely one of top-down ordinance, but rather of mythmaking and symbolic rituals of inclusion. Further, the construction of a Maroon ethnicity was also predicated upon the exclusion of non-Maroon, both in the form of catching of rebel slaves and repression of slave rebellion, and in the ownership by the Maroons of slaves. The Maroons did not end the institution of slavery, but they ended the condition of their own enslavement, and so made possible such actions as the successful revolt in Haiti, which, ultimately, collapsed racialized slavery in the New World. Understanding the ethnogenesis of the Jamaican Maroons provides an excellent

opportunity for people to escape the narrow duality of victim-and-oppressor which most often shapes discussion of the history of slavery.

REVIEW OF LITERATURE

Though the benefits of post-modern thought to the practice of history are putative and highly contentious, the dismantling of the wie es eigentlich gewesen pretension of modernist historians has undoubtedly benefited the study of histories of non-European peoples. However, many historians still find difficulty in expressly detailing the biases within their work. Historians of the Maroons are no exception. Deconstructionists may argue that the explicit or implicit agendas of historians belabor all history; Maroon history, however, has been particularly plagued by anachronistic and culturally inappropriate perspectives. From the earliest written accounts of the Jamaican Maroons, such as Edward Long's three volume The History of Jamaica (1774) and Robert Charles Dallas's The History of the Maroons (1803), to more recent works like Werner Zips' Black Rebels (1999), predominantly Euro-American and European scholars have placed their own social burdens upon the backs of the Jamaican Maroons.

The earliest writers distorted the Maroons to serve the varied needs of the British Empire. During the eighteenth century, the British Empire engaged in a multitude of struggles against Spain, France, and Portugal. Because Britain took Jamaica from the Spanish in 1655, the threat of Spanish re-conquest was always foremost in the minds of British officials and writers. Thus, Dallas attributes late seventeenth-century Maroon hostility towards British planters to "[the Maroons being] instigated by their former masters to commit hostilities against the new possessors of the country; a supposition by no means improbable, as the Spaniards...might purposely have kept up a communication." This view of Maroons as pawns of the interest of Empire was certainly not restricted to historians; many of the discussions recorded in The Journals of the Assembly of Jamaica reflect a concern on the part of the British that either the French or the Spanish would forge an alliance with the Maroons and drive the British from their profitable sugar colony.⁵

Competition against other empires, however, was not the sole need of the British Empire served by historians. By the end of the eighteenth century, abolitionist sentiment abounded in Great Britain. The London Committee, a prominent and vociferous group of influential citizens intent on

⁴ Robert Charles Dallas, The History of the Maroons: From Their Origin to the Establishment of Their Chief Tribe at Sierra Leone, vol. 1 (London: Frank Cass and Company, 1803; reprint, 1968), 24-5.

⁵ Journals of the Assembly of Jamaica.

abolition formed by 1787, and William Wilberforce "had already made known his intention of introducing the subject of the slave trade in the house of commons [sic]." As abolitionists gained popular support even prior to the organization of this influential group, historians had an added impetus to animalize the Maroons and normalize slavery. Edward Long, one of the earliest historians of Jamaica, argued that the British traffic in slaves prevented the enslaved from suffering "those horrid methods of diminishing them [in Africa], of which we read in history, by sacrificing them to their fetishes and great men; butchering their captives in war, and, in most of the provinces, devouring human flesh." Long was clearly responding to abolitionist critiques when he wrote, "a Briton therefore, who has always lived in fruition of a rational freedom, must not judge of every other man's feelings by his own; because they who have never experienced the same British freedom, or any degree near to it, cannot possibly hold the same opinion of slavery that a Briton does." As the eighteenth century ended, racial schemata rigidified, and racialized rationalizations like Long's became commonplace.

With slavery thus described as natural for Africans and vastly preferable to the violence and depravity ostensibly suffered in Africa, maroonage, to Long, represented an abhorrent, unnatural break in the Great Chain of Being. To Long, the only possible explanation for maroonage was the Maroon's desire "to rescue themselves from a life of Labour by force of arms." The purpose of such an account could only be to assuage mounting pangs of conscience on the part of British citizens. Though the rhetorical devices employed by Long and Dallas seem preposterous to modern readers, later historians of Maroons have often erred in a similar way.

Historians have seldom allowed the Maroons represent only themselves. To Long and Dallas, they were dangerous enemies of empire and subverters of the right and natural order of the world. To later writers, the Maroons represent a failed possibility of full-scale rebellion against plantation slavery and capitalism. The standard and oft-quoted recent work of Jamaican Maroon history, Mavis C. Campbell's *The Maroons of Jamaica*, 1655-1796: A History of Resistance, Collaboration and Betrayal, commits this fallacy. The very title of the work suggests that the Maroons abandoned a struggle, but nowhere in the work does Campbell explore what that struggle meant to the Maroons. Indeed, Campbell's work has been criticized as beset by a "lack of clarity [resulting from] a narrow

⁶ J.R. Oldfield, "The London Committee and Mobilization of Public Opinion Against the Slave Trade," *The Historical Journal* 35 (1992): 332.

⁷ Long, 387.

⁸ Long, 401.

⁹ Long, 445.

understanding of what freedom meant to maroons [sic] in the Jamaican context, as well as from an idealistic, if not romantic, notion of the politics of antislavery." The legacy of slavery is not easy to contemplate, particularly for those who continue to benefit from its exercise at the expense of those descended from the enslaved; criticizing the Maroons for not having demolished a system so clearly objectionable to twenty-first century thinkers is both poor history craft and alarming in its lack of critical approach to history, race, and slavery.

Werner Zips compounds the same errors of anachronism with a conflation of Maroon society and Rastafarian culture in *Black Rebels: African Caribbean Freedom Fighters in Jamaica*, which he promises to write as "a 'history of resistance' rather than a 'history of domination'." This Manichean perception of Maroon history is grounded in the world of the author rather than that of the Maroons, for syncretism and negotiation are defining characteristics of Maroon history. The author states that he "first developed an interest in Jamaica and the Caribbean by listening to the reggae texts of Bob Marley and Burning Spear in the 1970s...Rastafari contextualized and thereby historicized my original understanding." Rastafarian culture has certainly made significant inroads into contemporary Maroons communities, particularly in Accompong (where one of the few maker of the traditional Maroon drums, George Huggins, is an outspoken Rastafarian), but eighteenth-century Maroons were not Rastafarians. Perhaps even more phenomenal than the Maroon military victory over the British was the Maroon forging of a new ethnic consciousness; this new consciousness, however, was never of a Pan-African nature. Throughout his writing, Zips interprets events in Maroon history through a lens of heroic resistance, more appropriate to 1970s revolutionary music than the Blue Mountains and Cockpits of eighteenth-century Jamaica.

Similar issues of ahistorical revisionism afflict the discourse surrounding the issue of Maroons keeping slaves. Contemporary Maroons vehemently deny that the Maroons ever had slaves. Victor Reid, official abeng blower for the Accompong Maroons, asserts "Nanny did not have no slave out here," and, furthermore, Maroons were freedom fighters struggling against the institution of slavery. British lies are the basis for any assertion that the Maroons had slaves, according to Reid.¹³ Colonel Sydney Peddie, leader of the Accompong Maroons, and Colonel

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¹⁰ Hilary Beckles, review of *The Maroons of Jamaica*, 1655-1796: A History of Resistance, Collaboration and Betrayal, by Mavis C. Campbell, *The Journal of American History* 76 (1989): 579.

¹¹ Werner Zips, *Black Rebels: African Caribbean Freedom Fighters in Jamaica* (Princeton, N.J.: Markus Wiener Publishers, 1999), xi.

¹² Zips, 3.

¹³ Victor Reid, interview by author, Accompong, Jamaica, 6 August 2004.

Wallace Sterling, leader of the Moore Town Maroons, echo these denials.¹⁴ Of course, secrecy has long been a salient feature of Maroon societies. To even modern Maroons, discussing such a controversial topic may seem fraught with danger. Furthermore, Maroons are not culturally isolated, and continuing contact with the wider Jamaican population, and the obvious infusion of Rastafarian and Pan-African ideas into Maroon communities, could greatly influence Maroon interpretation and valancing of elements of Maroon history, as it obviously has shaded the views of non-Maroon historians.

Perhaps more disquieting to the historian is the high probability of a phenomenon known as feedback in Maroon oral histories, operating to alter Maroon historical memory to adhere to modern Jamaican values. Feedback "occurs in oral tradition when extraneous material, usually from printed sources, is incorporated into the tradition." The Jamaican Maroons are certainly aware of the extent to which outside historians, anthropologists, linguists, ethnomusicologists, and others have studied their culture. Modern Maroons often reference the work of scholars in interviews, sometimes deliberately and sometimes unconsciously. Commenting on the dangers of such a process in his study of oral tradition amongst the Saramaka Maroons of Suriname, Richard Price comments: "I am struck forcefully and painfully...by the ways in which my authority influences or crystallizes or freezes 'the truth' for those Saramakas who hear it." In a similar fashion, the anachronistic perspective of non-Maroon scholars who project a kind of pan-African, Marxist revolutionary, racialized consciousness onto the eighteenth-century Maroon may have indelibly influenced the Maroons' memory of their own history. With the prestige of the written word, a powerful by-product of colonialism, in addition to incredible social and political pressures, the Maroons may be adhering, on some level, to the simulacrum of maroonage created by outsiders.

Some more recent scholarship self-consciously seeks to avoid contributing to this simulacrum by incorporating the work of Maroon scholars and leaders with that of outside scholars, many of whom are trained Africanists. The essays collected in *Maroon Heritage*, assembled from a conference on Maroon Heritage at the University of the West Indies, Mona, in October 1991, are examples of this kind of approach. Though the authors whose work is represented in this collection come from a variety of academic disciplines and backgrounds, they often utilize the methodology of

¹⁴ Colonel Sydney Peddie, interview by author, Accompong, Jamaica, 7 August 2004.

Colonel Wallace Sterling, interview by author, Moore Town, Jamaica, 9 August 2004.

¹⁵ David P. Henige, "The Problem of Feedback in Oral Tradition: Four Examples From the Fante Coastland," *The Journal of African History* 14 (1973): 223.

¹⁶ Richard Price, *First Time: The Historical Vision of an Afro-American People* (Baltimore: The Johns Hopkins University Press, 1983): 23.

the cultural anthropologist; many of the authors seeks to explain various elements of Maroon culture in terms of adaptive responses to particular historical and environmental traditions, or else use an understanding of African languages and cultural practices to contextualize Maroon societies without essentializing them.¹⁷ While this approach represents an encouraging development in the study of the Maroons, the authors in the volume also fail to address some of the more controversial elements of Maroon history. For example, the essay "Maroons and Rebels (a Dilemma)," which comes closest to discussing contentious issues, dismisses the deep resentment and mistrust with which modern Jamaicans regard the Maroons, which they attribute to the betrayal of Paul Bogle, by saying that, for the post-treaty Maroons, "[t]he basis for mere sentimental solidarity had been destroyed." While creating a narrative of betrayal does not greatly illuminate Maroon history, neither does a reticence to regard and discuss those elements of Maroon history which appear less than heroic.

Archaeological data and primary documents, though spotty and plagued by the same biases as the contemporary secondary literature, are important sources, as the oral traditions are often distorted through feedback, the contemporary secondary literature is often thinly veiled colonial propaganda, and the more modern secondary literature sometimes seems to reflect more on the desires of the authors than on the history of the Maroons. Archaeologists first located the important Old Nanny Town settlement in 1967, and did not begin in-depth excavation until 1991. This excavation of Nanny Town and other excavations in Accompong were conducted with the help of the Maroons and the consent of the Maroon colonels and governing councils. The expressed purpose of this work was to "determine the nature and mechanism of functional adaptation of Maroon communities in the New World over time – a search for a cultural history rather than a history of 'rebels' or a second-rate group of people." While interpretation of archaeological data is certainly not free of the interpretational biases that affect other forms of historical inquiry, it can be useful to analyze the material remains of a culture while remaining mindful of the interpretive biases and shortcomings of others.

Other important anthropological research considering the Maroons includes the ethnohistorical work by Barbara Klamon Kopytoff. Kopytoff wrote her 1973 doctoral dissertation, "The Maroons of Jamaica: An Ethnohistorical Study of Incomplete Polities, 1655-1905," in an

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¹⁷ Maroon Heritage, ed. E. Kofi Agorsah (Kingston, Jamaica: Canoe Press, 1994).

¹⁸ Carey Robinson, "Maroons and Rebels (A Dilemma)," in *Maroon Heritage*, ed. E. Kofi Agorsah (Kingston, Jamaica: Canoe Press, 1994): 86.

¹⁹ E. Kofi Agorsah, "Archaeology of Maroon Settlements in Jamaica," in *Maroon Heritage*, ed. E. Kofi Agorsah (Kingston, Jamaica: Canoe Press, 1994): 165.

²⁰ Agorsah, "Archaeology of Maroon Settlements in Jamaica," 165.

attempt to demolish the view of Maroons as "social survivals, as isolated islands of 'archaic' African cultures preserved under unique 'tribal' conditions." Kopytoff endeavors to use written historical records as an ethnographer uses testimonies by and observations of living people; though the results are more useful than the shrill narratives of resistance and betrayal, Kopytoff's work is characterized by a narrow focus on the impact of leaders on history. This top-down approach, which Kopytoff indicates was suggested "in the course of gathering oral data on the 'traditional' maroon political system [where] the chronic problem of Maroon leadership emerged as central issue," detracts from the agency and importance of everyday Maroons and their decisions in effecting the course of history. While leadership issues are a worthy consideration in Maroon history, historians have largely abandoned the privileging of the history and importance of the elite.

Ethnomusicologist Kenneth Bilby effectively uses the techniques of cultural anthropology to unpack the meaning behind various symbols and myths in the Maroon culture. His work is free of the conflation of Maroon with Rasta, and he does not adopt a narrative of resistance and subsequent betrayal. His extensive fieldwork amongst the Maroons, and the openness with which he engaged in their ceremonies and rituals, yields a much more thorough understanding of Maroon culture than that achieved by other scholars.²³

While a critical re-appraisal of the theoretical and cultural biases underlying the current works on Maroon history is clearly necessary, so, too, do the difficulties associated with the scant first-hand data and secrecy and initial aliteracy of the Maroons demand reconsideration. Maroons were not, historically, literate, and literacy came to the Jamaican Maroons at the hands of Christian missionaries; such an education extends far beyond orthography and phonics into the most intimate realms of self-perception, identification, and values, as evinced by the writings of many mission-educated Africans. Even postcolonial Jamaica has threatened Maroon autonomy, as governments have questioned the validity of treaties made with the erstwhile colonial power. The emancipation of slaves in Jamaica, too, orchestrated greater contact between Maroons and non-Maroons on the island, and this contact brought further changes in Maroon communities. These influences on the oral tradition, combined with the previously discussed issues of feedback, make ethnographic research a tenuous gateway into an understanding of the eighteenth-century Maroons. Many

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²¹ Barbara Klamon Kopytoff, "The Maroons of Jamaica: An Ethnohistorical Study of Incomplete Polities, 1655-1905" (Ph.D. diss., University of Pennsylvania, 1973), xxvi.

²² Kopytoff, *The Maroons of Jamaica*, xxxi.

²³ Kenneth Bilby, "Swearing by the Past, Swearing to the Future: Sacred Oaths, Alliances, and Treaties among the Guianese and Jamaican Maroons," *Ethnohistory* 44 (Fall 1997): 10-25.

archival resources from the eighteenth century are in extreme disrepair, and some important documents are sealed shut with mold, crumbling, and otherwise inaccessible to researchers at the National Archives in Jamaica. Those documents that are available present a frustratingly shallow and one-sided depiction of the Maroons.

Thus, anyone seeking to create a nuanced history of the Jamaican Maroons is forced to rely on a great deal more conjecture and analogical comparison than any historian would wish to do. These difficulties, combined with the cultural and relative physical inaccessibility of Maroons, account, perhaps, for the comparative dearth of thoughtful scholarship on Maroon history. While answers may never be apparent or conclusive, questions about the Jamaican Maroons are certainly worth asking. Jamaican Maroons captivate the imagination of many, and can be inspirational in a way that does not necessitate anachronistic projection or sentimental over-romanticizing. The military strategies of the Maroons are widely credited as representing the first successful guerrilla campaigns in the New World, and scholars have exhaustively studied the Maroons' guerilla tactics. What is less examined, and perhaps less easily rendered into epic prose, is the rapid and thorough transformation of an tremendously diverse assortment of unrelated fugitives into a coherent and cohesive ethnicity. The ethnogenesis of the Jamaican Maroons, necessitated by the bitter struggle against the British, occurred within the period of one, or perhaps two, generations. The story of that process, and the social, spiritual and psychological machinations that made it possible, is the subject of this work.

THE ORIGINS OF THE PROTO-MAROONS IN AFRICA

As African cultural traditions have been an area of intense focus for scholars studying the Maroons, much effort has gone into attempting to ascertain the specific areas and cultural complexes in Africa from which the Jamaican Maroons derive. One way of narrowing the focus to specific African cultures is to analyze slave ship records for ports of origin, though records are notoriously incomplete and ports of departure for Africans do not necessarily reflect point of origin. Many enslaved in Africa were captured at points far distant from those at which they were sold. However, for all ships disembarking in Jamaica between 1676 and 1700, of the 55,776 slaves that arrived during these years, of those for whom ports of origin in Africa are known, 5,414, or 11.2%, originated from the Gold Coast. Between 1701 and 1725, 29,912 of 125,338 disembarked slaves,

44.8% of the total enslaved population for whom a port of embarkation was recorded originated from the Gold Coast.²⁴

The British believed that various African people possessed different innate physical and social characteristics, and the role of the Kromantis, also known as Coromantee, Cromantin, Kramanti and Koromanti, played is crucial to understanding eighteenth-century Jamaica. All of these terms are orthographic variations on the same pseudo-ethnic identity created by the British to refer to those who embarked on slave ships from around the area of the Akan fishing village on the Gold Coast, Kromantine.²⁵ Edward Long claimed, "[t]he Coromantins, and many others of the Gold Coast slaves, are haughty, ferocious, and stubborn. The Minnahs, timind [sic] and desponding, apt to destroy themselves upon the least, and often without any, provocation. The Mundingo Negroes are very subject to worm disorders; the Congos to dropsies."²⁶ According to Dallas, "the Coromantee [are] are a people inured to war on the coast of Africa."²⁷ The British believed that the Kromanti possessed "superior strength...and greater hardiness to support field labour," which made them more appealing to sugar planters.²⁸ Indeed, the British appeared to have greatly admired the Kromanti. In 1701, Christopher Codrington, British governor of the Leeward Islands, wrote of the Kromanti that "[t]hey are not only the best and most faithful of our slaves, but are really all born Heroes. There is a difference between them and all other Negroes...There was never a rascal or a coward of vt nation, intrepid to the last degree."²⁹ The majority of enslaved Akan speakers taken to the Caribbean appear to have disembarked in Jamaica.³⁰ However, after a series of Kromanti-led slave revolts in the 1760s, the Assembly of Jamaica contemplated a bill "for laying an additional higher duty upon all Fantin, Akim, and Ashantee Negroes, and all others commonly called Coromantins, that should, after a certain time, be imported, and sold in the island."³¹ The bill did not pass, and Kromantis continued to be associated with most of the major slave revolts in Jamaica.

Further evidence for this Akan derivation of the core of the Jamaican Maroons lies in linguistic and cultural continuities observed since the eighteenth century. The blood ritual which

²⁴ David Eltis *et al.*, eds., *The Trans-Atlantic Slave Trade: A Database on CD-ROM* (Cambridge, UK: Cambridge University Press, 1999), query and summary of slaves disembarking in Jamaica between 1676-1700 and 1701-1725. ²⁵ Zips, 55.

²⁶ Long, 405.

²⁷ Dallas, 29.

²⁸ Long, 471.

²⁹ Codrington to Council of Trade and Plantations, 30 December 1701, quoted in Mavis Campbell, *The Maroons of Jamaica*, 1655-1796: A History of Resistance, Collaboration and Betrayal (Massachusetts: Bergin and Garvey Publishers, 1988), 45.

³⁰ Philip Curtin, *The Atlantic Slave Trade: A Census* (Madison, WI: University of Wisconsin Press, 1969), 161.

³¹ Long, 470.

sealed the Leeward Treaty of 1739 is known as "The Asante Oath," though, as previously mentioned, Twi-speakers could have been slaves of the Asante or other Akan speakers, or simply people from the Akan hinterlands who spoke Twi, a widely distributed language.³² One version of the oral history of Nanny in Maroon communities explains that far from ever having been a slave herself, Nanny was an Asante queen, who, knowing that her people were in trouble, voluntarily resettled in Jamaica.³³ Similarities between words in the Kromanti language, which, according to a former colonel of the Moore Town Maroons, "is regarded as a hybrid having Twi, the Ashanti language of the Gold Coast...as the more vigorous of its parents," and Twi as spoken in Ghana are abundant.³⁴ Prominent Maroon names, such as Kofi, Kojo, and Quaco, which dominate the Accompong Maroon census of 1773 (the only year in which the names of the Maroons were entered into the Journals of the Assembly of Jamaica), are consistent with the Akan practice of naming a child after the day of the week on which she or he is born.³⁵ Other strong evidence for Akan influence lies in names and specific practices. Daukunu, a maize dish, is prepared the same way and called by the same name in Ghana and amongst the Jamaican Maroons.³⁶ Other examples of such mutually intelligible words include the deity name "Nyankopong...unsu (water), unsa (rum), edwiani (food), kwedu (banana), ekutu (orange), and prako (pig)."37 Amongst Jamaican slaves as a whole, Akan (or the version known as Twi) became a prominent and widely used lingua franca, and even slave masters used words from Akan.³⁸ While elements of Kromanti language, including lexicon, inflection, and grammar, remain central to the Jamaican creole spoken by modern Maroons, Kromanti has largely become a ritual language, used in certain rituals and in the Kromanti Play.

Kromanti Play is a ritual ceremony, often conducted for the purposes of healing. The Play involves drumming and singing, and possession of one of the Maroons present by the spirit of one of the ancestors.³⁹ Ethnomusicologist Kenneth Bilby attended a Kromanti Play in the 1970s after participating in a version of the famed "Asante oath." This oath, which will be discussed later, is

³⁹ Harris, 49.

³² M. Campbell, 115.

³³ Karla L. Gottlieb, "'The Mother of Us All'" A History of Queen Nanny, Leader of the Windward Jamaican Maroons, (Trenton, NJ: Africa World Press, Inc., 2000), 70.

³⁴ C.L.G. Harris, "The True Traditions of My Ancestors," in *Maroon Heritage*, ed. E. Kofi Agorsah (Kingston, Jamaica: Canoe Press, 1994), 39.

³⁵ *Journals of the Assembly of Jamaica*, 16 November 1773.

³⁶ Maroon Heritage, xv.

³⁷ Harris, 42.

³⁸ John Thornton, *Africa and Africans in the Making of the Atlantic World*, *1400-1680* (New York: Cambridge University Press, 1992), 192-205.

Trevor Burnard, *Mastery, Tyranny, and Desire: Thomas Thistlewood and His Slaves in the Anglo-Jamaican World* (Chapel Hill, NC: The University of North Carolina Press, 2004), 4.

central to the Maroon conception of identity, and of the sanctity of the Peace Treaties. 40 Kromanti Play and the Asante oath both reflect cultural continuities with the Akan-speaking regions of the Gold Coast.

Either because of the numerical preponderance of Akan-speaking or Kromanti-associated people in the Maroon groups, or because of their prominence, elements from these cultures are most observable amongst the Jamaican Maroons. Other African groups, however, were undoubtedly part of the Maroons. British descriptions of captured Maroons include such monikers as Congo and Igbo, and "the advertisements for runaway slaves, who swelled the membership of the bands, include all...types."41 One notable non-Akan ethnicity represented in the Jamaican Maroons is Madagascan.

Dallas described this element of the Maroons as "distinct in every respect; their figure, character, language, and country, being different from those of the other blacks...They were called Madagascars, but why I do not know, never having heard that any slaves were brought from the island of Madagascar." Historical records show that Europeans purchased slaves in Madagascar as early as the sixteenth century, and export of slaves across the Atlantic increased as the demand for slaves to work sugar plantations increased.⁴³ The Madagascan element amongst the Maroons, according to one source, were descended from survivors of a slave ship that wrecked off the Jamaican coast in 1670.44 Dallas claimed that the Madagascans "ran away from the settlements about Lacovia, in the parish of St. Elizabeth, soon after the Planters had bought them."⁴⁵ Initially, the Madagascans had their own leader, and often raided plantations or helped plantation slaves flee, thus increasing their numbers. When the leader of the separate Madagascan group died in battle, these numerous fugitives joined Kojo's band and accepted his leadership. 46

FROM SLAVES TO KROMANTIS

⁴⁰ Bilby, "Swearing by the Past," 664.

⁴¹ Kopytoff, *The Maroons of Jamaica*, 22.

⁴² Dallas, 31-2.

⁴³ Gwyn Campbell, "Madagascar and the Slave Trade, 1810-1895," *The Journal of African History* 22 (1981): 205.

⁴⁴ Orlando Patterson, The Sociology of Slavery: An Analysis of the Origins, Development and Structure of Negro Slave Society in Jamaica (Rutherford, N.J.: Fairleigh Dickinson University Press, 1969), 268.

⁴⁵ Dallas, 32.

⁴⁶ M. Campbell, 46-7.

An important step in the creation of a Jamaican Maroon ethnicity was the coalescing of the various Akan speakers into a Kromanti identity. The mutual intelligibility of the various Akan dialects greatly expedited this process. In addition, the shared experience of the Middle Passage and the plantation facilitated social cohesion. The kinship system of the Saramaka Maroons of Suriname, analogously, is centered on matriclans that often trace their origins to people who shared the Middle Passage and fled from the same plantation.⁴⁷ The core of the Leeward Jamaican Maroons derived from a group of four hundred slaves who revolted on Sutton's plantation in Clarendon in 1690 and fled to the Cockpits.⁴⁸ The leader of the Clarendon rebels was Kojo's father.⁴⁹

This strong nucleus of Clarendon rebels in the West encountered a fragmented socio-political situation in the Cockpits. Though some of the refugees maintained contact with those on plantations, many, particularly women, the elderly, and the young, who were not involved in regular raids, were cut off from contact with family and friends on the plantations. Furthermore, the Clarendon rebels entered an area that already abounded with refugees. The Madagascans, previously mentioned, occupied the same region of the Cockpit country of St. Elizabeth's perish, and, indeed, fought with Kojo's group until the demise of their leader. Other bands consisting of members of past slave rebellions, including, notably, participants in a 1673 rebellion on Lobby's plantation, found refuge in the Cockpits, and a 1685 rebellion on Widow Grey's plantation augmented the Windward group, who were, generally, more reticent to accept newcomers.⁵⁰ Most of these rebellions are described in the colonial documents as being led by Kromantis. Other than these rebel groups, many other individuals and smaller groups simply fled the plantation and congregated in larger bands in the interior.

The groups in the Windward part of the island were largely derived from enslaved people who seized the opportunity presented by the British capture of Jamaica from the Spanish in 1655 to flee into the Blue Mountains.⁵¹ Dallas marveled at the existence of such groups as, in his opinion, "slaves are often found faithful to their owners, and hostile to invaders."⁵² Though the British continued to worry that these fugitive slaves would help re-conquer the island for the Spanish, of more immediate concern was the "perpetual alarms [caused by] setting fire to buildings…and…even

⁴⁷ R. Price.

⁴⁸ Dallas, 23.

⁴⁹ Kopytoff, *The Maroons of Jamaica*, 29-30.

⁵⁰ Kopytoff, The Maroons of Jamaica, 29.

⁵¹ Agorsah, "Archaeology of Maroon Settlements in Jamaica," 165.

⁵² Dallas, xxxi.

to houses in the capital itself...they actually intercepted and massacred without pity, almost every individual who ventured to ramble into the country."⁵³ Many of these early refugees were Spanish creoles, though Akan-speakers seemed prevalent both in this group and amongst the later fugitives and rebels who joined them.⁵⁴

In the late seventeenth and early eighteenth century, Akan-speaking states were anything but unified and cohesive. Asante, perhaps the most powerful of the states, was engaged in massive military expansion efforts against its neighbors as it sought to dominate both the gold and the slave trade. Between 1670 and 1744, Asante engaged in wars of conquest against Kenkyrira, Banda, Gyaman, Akyem, Akwapim, and Akwamu, all Akan-speaking polities. In fact, the various wars in which the majority of the slaves sold from the Gold Coast had been captured are telling indicators of the high degree of conflict amongst the Akan-speaking states. Thus, the designation of Akan-speakers as Kromanti, a practice which originated with the slave traders, had great significance in the transformation of the disparate groups of refugees in the Jamaican interior into the Jamaican Maroons.

Much has been written about the physical and psychological debasement inherent in the dehumanizing practices of the Middle Passage and of plantation slavery. A crucial aspect of this process, which is often overlooked, is the spiritual tactics used by the slave traders against the enslaved Africans. In some places, "the slave was made to take an oath of allegiance to his enslaved status while cracking a cola nut...Slaves were also tamed with drugs...[and in Muslim areas, slaves were] washed in water mixed with talismans based on Koranic verses."⁵⁷ In Dahomey, enslaved people were forced to walk around "the tree of forgetfulness" in a sacred grove; this process was designed to make the people forget who they were, and it reportedly produced immediate, observable docility amongst many subjected to this ritual.⁵⁸ In conjunction with the physical and psychological torture to which enslaved people were subjected, this spiritual violence profoundly affected self-perception.

The proto-Maroons, then, needed a powerful weapon with which to combat this spiritual assault, a weapon on par with their mastery of guerilla warfare tactics. This spiritual weapon took

⁵⁴ M. Campbell, 47-8.

⁵³ Dallas, xxxii.

⁵⁵ T.C. McCaskie, *State and Society in Pre-Colonial Asante* (Cambridge: Cambridge University Press, 1995), 25-6.

⁵⁶ Robert W. July, *A History of the African People*, 5th ed. (Prospect Heights, IL: Waveland Press, 1998), 124-5. Djibril Tamsir Niane, "Africa's Understanding of the Slave Trade: Oral Accounts," *Diogenes* 45 (1997): 85.

⁵⁸ Laura Samsom Rous and Hans Samsom, *Tree of Forgetfulness* (Amsterdam: Koninklijk Instituut Voor de Tropen, 2004).

that the peace treaties were sealed with a blood oath. However, members of the early group were also made to swear a version of the Asante oath as an oath of incorporation.⁵⁹ In 1733, a captured Maroon reportedly told the British

they [the Windward Maroons] give encouragement for all sorts of negroes to join them, and oblige the men to be true to them by an oath that is held very sacred among the negroes, and those who refuse to take the oath, whether they go of their own accord or are made prisoners, are instantly shot to death.⁶⁰

Bilby is able to trace discrete elements of the oath of incorporation to exactly corresponding oaths prominent in Asante and in Akan-speaking groups that conflicted with the Asante.⁶¹

Accounts of the blood oath pervade from other colonial interactions with Maroon groups. The Aluku Maroons of Suriname and French Guiana treated with the French emissary Cadet in 1780. After initial suspicion, the Aluku agreed to peace, and sealed the offer "with blood drawn from both their arms and mixed together in a calabash, from which both men drank." A similar account of the blood oath was written by the French priest Nicolas Jacquemin, who negotiated with the Aluku in 1782. Jacquemin relates:

They [the Maroons] said that it would be necessary to cement the alliance with an oath commonly used among them; as I knew what this oath consisted of, I showed repugnance, saying that it wasn't necessary...A negro put some water in a calabash and then lightly pricked Jacquet [Father Jacquemin's companion] on his foot and on his hand with the point of a knife and drew a drop of blood, which he put in the calabash. After this he did the same thing to the negro captain, then put in the said calabash a bit of ashes and earth and mixed it all together. Then the chief spoke, saying that this ceremony, this mixing of our blood with theirs, signified that we had become brothers, that we must always be as one with them, and they with us, making a thousand curses against those who would violate this pledge, wishing that they be

⁵⁹ Bilby, "Swearing by the Past," 670.

⁶⁰ Barbara Klamon Kopytoff, "The Development of Jamaican Maroon Ethnicity," *Caribbean Quarterly* 22 (1976): 44.

⁶¹ Bilby, "Swearing by the Past," 676.

⁶² Bilby, "Swearing by the Past," 664.

anathema...[A] negro took a bit of the mixture that was in the calabash and poured it twice into their mouths.⁶³

Bilby reports a similar practice amongst other Maroon groups, including the Saramaka, Matawai, and Ndjuka of Suriname, and traces the origins of such practices to oath swearing amongst Akan.⁶⁴ The oaths constituted an important cultural continuity that may have been Akan in derivation, but was seemingly understood and respected by all the proto-Maroons. This oath consecrated the terms of the treaties with the same gravity that was attributed to all oaths sworn in the witness of the gods. Indeed, other permutations of the oath ritual were, and still are, performed any time a non-Maroon witnesses an important Maroon ritual, such as the Kromanti Play.⁶⁵ By delineating membership in the community by allegiance to a sacred oath sworn to the gods, the heterogeneous Akan-speakers and non-Akan were able to create a clear sense of solidarity. That this oath derived from the Asante would have important ramifications.

Using this kind of oath solidified people into Kromanti-identified, and, ultimately, Maroons. Kojo appears largely instrumental in this process, at least for the Leeward Maroons. Significantly, Kojo forbade the use of any language other than English, seeking to avert ethnic factionalism. Though English may have been the mandated language of use, Kromanti persisted. Even today, Kromanti is known as a ritual language, and elements of Kromanti are present in the every day speech of modern Maroons. Though Kromanti was allowed to persist, other African languages were not. Dallas reports that some Maroons in the late eighteenth century remembered words and phrases from different African languages, spoken by their parents, including Malagasy. Kromanti was never an ethnic designation for Africans; in the crucial period between 1655 and 1739, however, Kromanti became a critical identity in Jamaica. It would not be until the signing of the 1739 treaties that Kromanti identity would be replaced by a Maroon identity.

BRITISH CONCEPTIONS OF RACE AND ETHNICITY

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⁶³ Nicolas Jacquemin, "Journal de Mon Voyage Chez les Indiens et les Negres Refugies sur Nos Terres, Fait en Decembre 1782" reproduced in Jean Hurault, "Histoire des Noirs Refugies Boni de la Guyane Française (d'Après les Documents des Sources *Françaises*)," *Revue Française d'Histoire d'Outre-Mer* 47 (1960): 98-101, translated in Bilby, "Swearing by the Past."

⁶⁴ Bilby, "Swearing by the Past," 668-73.

⁶⁵ Bilby, "Swearing by the Past," 674-7.

⁶⁶ Kopytoff, The Maroons of Jamaica, 26.

⁶⁷ Dallas, 32-3.

Intrinsic to the British regard of the proto-Maroons and Maroons, was the larger conceptual rubric under which the Europeans understood race. During the seventeenth and early eighteenth century, before Enlightenment philosophy was firmly embedded in European culture and led to the advent of scientifically justified racism, one construct for explaining racial differences was the Hamitic hypothesis. The origin of the Hamitic hypothesis lies in the Babylonian Talmud of the sixth century CE; the Talmud is a collection of a Jewish oral tradition regarding interpretation of the Torah. One section of the Babylonian Talmud seeks to elaborate on Genesis 9:24-25, wherein "Noah awoke from his wine, and knew what his younger son [Ham] had done unto him [in laughing at his father's drunkenness and nakedness]. And he said, Cursed be Canaan; a servant of servants shall he be unto his brethren."68 In explaining this section of Genesis, the Babylonian Talmud "the descendants of Ham claims that are cursed by being black...[and are]...sinful...and...degenerates."69 This myth became particularly utilitarian for the Christians in the late mediaeval period, during which time labor shortages caused by the high death rate of the bubonic plague increased the need for forced labor. Finding a biblical explanation for the innate inferiority of an entire continent of people eased the Christian conscience and made the profitable practice of slavery, though by no means restricted to Africans, entirely feasible for legions of pious seventeenth-century Europeans.

The Hamitic hypothesis represents an early, broad European mythical construct used to understand race. The British, however, had more specifically evolved racial constructs which informed their thinking by the eighteenth century. Anglo-Saxon racial consciousness originated in the sixteenth century English split with the Roman church; Anglican Archbishop Matthew Parker and others, in working to justify the divergence from Rome, focused attention on English practices that predated the Norman conquest. As linguistic studies emerged, Anglo-Saxon identity was subsumed under the larger Teutonic myths, as promoted by Verstegan, Camden, and others in the seventeenth century. Teutonic peoples were glorified as liberty-loving; the contemporary English viewed the Teutonic campaigns against a decaying and decrepit Rome as the racial antecedent to the

⁶⁸ Genesis 9:24-25. King James Version.

⁶⁹ Edith R. Sanders, "The Hamitic Hypothesis: Its Origin and Functions in Time Perspective," *Journal of African History* 10 (1969): 521-522.

⁷⁰ Robert Graves and Raphael Patai, *Hebrew Myths: The Book of Genesis* (Garden City, NY: Doubleday, 1964), 121.

⁷¹ Reginald Horsman, "Origins of Racial Anglo-Saxonism in Great Britain Before 1850," *Journal of the History of Ideas*, 37: 3 (July-Sept. 1976), 387-88.

freedoms sought by the British in sixteenth- and seventeenth-century reforms.⁷² Eighteenth-century British racial consciousness had departed from a broader, more generalized Biblical paradigm, embracing instead an ideology that uniquely glorified the Teutonic peoples. According to Horsman, "[e]ighteenth-century English Whigs and radicals accepted as axiomatic the view that English political institutions had enjoyed a continuous history from Saxon times, and that subsequent changes had destroyed earlier freedoms."⁷³

Later eighteenth-century thinkers were to bind notions of race to conceptions of national identity as defined by language. For example, John Pinkerton's famous 1787 publication, Dissertation on the Origin of the Scythians or Goths, proclaims "A Tartar, a Negro, an American &c. &c. differ as much from a German, as a bull-dog, or lap-dog, or shepherd's cur, from a pointer," with no greater fervor than his description

of Celts as "savages since the world began, and will be for ever savages while a separate people; that is, while themselves, and of unmixt blood."74 To the eighteenth-century British, the pre-eminence of the British Empire derived, in no small part, from the gloriousness of the Anglo-Saxon past and the English language as a most venerated member of the Germanic language family. However, the superiority of English speakers could not be conferred upon all of those who spoke English. In a footnote in the 1753-4 edition of his essay "Of National Characters," philosopher David Hume compares an educated Afro-Jamaican man to a parrot: able to generate learned-sounding phrases without possessing true intelligence.⁷⁵ While eighteenth-century British subjects certainly displayed a racial consciousness, it was a fluid, nationalistic consciousness, not yet solidified into the later Blackand-White dialectic. Despite the flexibility that could allow Teutonic enthusiasts to dismiss Africans and Celts with the same broad brushstroke, by the eighteenth-century, British Jamaicans espoused a belief that Africans had "as great a Propensity to Subjections, as we have to command and love Slavery as naturally as we do Liberty."⁷⁶

British racial conceptions provided a durable circle of tautology during the seventeenth and eighteenth centuries. On one hand, all children of Ham were destined to be slaves because of continued culpability for the transgressions of Ham against Noah; all such cursed children were

⁷² Horsman, 389.

⁷³ Horsman, 390.

⁷⁴ John Pinkerton, A Dissertation on the Origin and Progress of the Scythians or Goths Being an Introduction to the *Ancient and Modern History of Europe* (London, 1787), 24-31, 33-4, 51, 69.

⁷⁵ Felicity A. Nussbaum, The Limits of the Human: Fictions of Anomaly, Race, and Gender in the Long Eighteenth Century (New York: Cambridge University Press, 2003), 136-137.

⁷⁶ Guillaume Raynal, A Philosophical and Political History of the Settlements and Trade of the Europeans in the East and West Indies, 5 vols., translated by J. Justamond (Dublin, 1779), 5:48.

marked by dark skin pigmentation. Thus, to the mind of a British subject of the seventeenth or eighteenth century, the very possession of dark skin was indicative of a natural condition of subjugation. Maroons were certainly not Germanic, but the act of maroonage displayed a love of liberty that closely cohered to the most glorified ostensible innate attributes of the Germanic people. Furthermore, Maroons ably communicated in English, particularly after Kojo's mandate of English as the official Maroon language. In engaging in maroonage, the Maroons forced the British to contend with the cognitive dissonance implicit in the witness of people refusing the life into which the British believed they had been divinely and naturally, and culturally, ordained.

The British responded to the conceptual challenge presented by proto-Maroons and maroonage by altering their theoretical constructs, or by altering their perception of events to cohere to hopelessly inadequate schemata. Given the schematic categories available to the British at the time, for example, an independent Black woman constituted an impossible reality; to be Black meant to be naturally servile, and to be a woman compounded this. While the British were able to comprehend the threat presented by the male Maroons warriors, the power of Nanny was completely incomprehensible. British Jamaicans were far more accustomed to viewing Black women as a threat only in a sexual sense. Long decried the "scheming black Jezebels... [who engaged the White men in] goatish embraces."⁷⁷ Indeed, British writers attempted to diffuse the threat of the belief by many Maroons and non-Maroons that Nanny could catch bullets by moving the myth onto more familiar, erotic territory, having Nanny instead catch bullets with her buttocks.⁷⁸ Though Nanny was thus degraded in the British rendering of her legends, the British also deeded the Windward Maroons land in her name under a law that was designed to encourage White settlement in Portland.⁷⁹ By legally rendering Nanny a White woman, the British were able to keep their cognitive categories intact. This perceptual contortion foreshadowed the development of a later incarnation of the Hamitic hypothesis.

As the Europeans made more discoveries about African societies and cultures, particularly after the Napoleonic invasion of Egypt in 1798, certainty in the technological and cultural inferiority of all non-European cultures became an increasingly untenable position.⁸⁰ Whereas the earlier version of the Hamitic hypothesis argued that all of the children of Ham were cursed with dark skin

⁷⁷ Long, 279.

⁷⁸ Kamau Brathwaite, "Nanny, Palmares and the Caribbean Maroon Connexion," in *Maroon Heritage*, ed. E. Kofi Agorsah (Jamaica: Canoe Press, 1994), 120-21.

⁷⁹ Land Patent to Nanny, 1740, British Patents Volume 22, Folio 15B.

⁸⁰ Sanders, 524.

and eternal servitude, the hypothesis later contended that the other sons of Ham, namely Mitzraim (viewed as the forefather of the Egyptians) and Cush, were immune from the curse, which had been directed specifically at Canaan.⁸¹ This reconfiguration of the Hamitic hypothesis allowed the Europeans to account for the advanced civilization of the Egyptians; it also allowed European colonialists to claim the superiority of groups such as the Tutsis of Rwanda, who, according to the restructured myth, were actually "Caucasoid" Hamites, descendent of the non-cursed sons of Ham, rather than the doomed descendents of Canaan. In establishing a conceptual framework for claiming the superiority of certain Black groups, the Europeans were able to create a hierarchy within a hierarchy. This structure ensured an almost constant struggle between various groups of subjugated people, who scrambled to achieve Hamitic stature on the Great Chain of Being as conceived by the Europeans. The work of the British to re-configure Nanny into a privileged landed White, to restructure the militarism of the Maroons into a deadly, effective, slave-catching force, and to change the economic communalism of the Maroons into capital-seeking individualism, microcosmically reflects a larger pattern of colonial divide-and-conquer modus operandi. Nanny's seemingly miraculous shift from Black to White at the drop of a land patent represents the relative fluidity of racial characterization during the eighteenth-century. As Felicity Nussbaum argues in The Limits of the Human: Fictions of Anomaly, Race, and Gender in the Long Eighteenth Century:

In this historical period biological markers are not yet firmly fixed to nation or physiognomy, and the easy slippage from one color to another, from one place of origin to another, testifies on the one hand to an Enlightenment wish paradoxically to claim the inherent "whiteness" of all humankind and the inadequacy of pigmentation and physiognomic traits in revealing character; and on the other, the wish to formulate a philosophical basis that could justify interracial libertinism, the slave trade, and an empire.⁸²

Nanny represented a crucial figure to the interests of the British and Maroons alike. To Maroons, both past and present, Nanny is a revered ancestor and admirable hero. To the British, Nanny served other vital functions. In deeding the Windward lands to Nanny and her followers, personally, the British blatantly disregarded the African tradition, upheld by the Maroons, of owning land corporately. To the same degree that the language of the land deed reveals the struggles of the eighteenth-century British to formulate a coherent philosophy of race and justice, it also illuminates

⁸¹ Sanders, 526-7.

⁸² Nussbaum, 156.

an early attempt by the British to bring the threateningly anomalous Maroons into the comfortable and controllable realm of acquisitive individualism. Significantly, in the Maroon Land Allotment Act of 1842, the British government attempted to revoke the rights of the Maroons guaranteed in the peace treaties. This law sought to re-appropriate collectively owned Maroon lands and reapportion them to individual Maroons. Due to British unwillingness to engage in the intense military involvement enforcement of this law would have required, the Maroon Land Allotment Act of 1842 was effectively nullified.⁸³

MAROON AND BRITISH CONCEPTIONS OF LIBERTY AND THE PEACE TREATIES OF 1739

Fundamental to the European Enlightenment thinking of the eighteenth century was the concept of endemic, bourgeois, individual freedom; indeed, the American Declaration of Independence synthesized and reiterated the most prevalent contemporary elements of political philosophy. Eighteenth-century European philosophers eloquently engaged with notions of liberty, freedom, and justice within the glaringly paradoxical confines of societies built upon slave labor and the trans-Atlantic traffic in African people. Throughout the European-colonial dominated world of the eighteenth century, Whites daily negotiated the obvious contradiction between their professed love of liberty and their enslavement of other human beings. The British colony of Jamaica, in particular, compelled fascinating philosophical, logical, and ethical contortions on the part of its White inhabitants. In the broader British Empire, Jamaicans were reputed to have, as early nineteenth-century observer Reverend Richard Renny described, a "high spirit of independence...[they speak] what they think, without fear or reserve...No people were more free than themselves or more watchful of their freedoms. They pay the most vigilant attention to every circumstance which can encroach upon their liberty."

⁸³ Zips, 118-9.

Pauline Maier, American Scripture: Making the Declaration of Independence (New York: Random House, 1998), xvii.

⁸⁵ Richard Renny, A History of Jamaica (London, 1807), 209.

By contrast, such a diligent maintenance of the proscriptive structures of freedom for the British of Jamaica necessitated an equally conscientious suppression of the Afro-Jamaicans. According to British Colonial Office statistics, in 1730, Whites comprised approximately 9.8% of Jamaica's population. 86 The British population was far from stable; in 1730, roughly 11% of the British population perished, largely from "tropical fevers," a catchall term for epidemics endemic to the West Indies.⁸⁷ The enormous numerical minority of the British, combined with the high degree of transience and mortality, contributed to the character of Jamaican society as a barbaric outpost where slaves were treated more brutally than in any other region of the British Empire.⁸⁸ In such a setting, it is not surprising that many Africans and Afro-Jamaicans refused to accept the brutality and dehumanization directed towards them by the minority British. Rebellion, whether through direct, violent resistance, maroonage, or more subtle means, such as disruption of sugar mills, was pervasive throughout the reign of the slavemasters. The most sustained, violent rejection of the plantation system was the acts of grand maroonage that ultimately created the communities in the Blue Mountains and the Cockpit Country. Within the confines of eighteenth-century Jamaican history, in which a professedly freedom-loving group of British felt perpetually menaced by the constant terror of violence and retribution from the African and Afro-Jamaican slaves whom they brutalized, the Jamaican Maroons sit inimically outside of this apparently Manichean narrative. From one perspective, the Maroons actively resisted the institution of slavery through their ultimately successful military campaigns against the British. However, the Maroons secured not the autonomy later post-colonial scholars would desire for them, but rather liberty, as they understood it.

Clearly, the manner in which the Maroons conceived of themselves and the manner in which the British understood the Maroons was diametrically opposed. Equally important was the degree to which the Maroon and British understanding of liberty differed. A useful rubric for understanding the differences between the Maroon and British conceptions of liberty is posited by philosopher Isaiah Berlin in his essay "Two Concepts of Liberty." In this work, Berlin demarcates between negative liberty, or the freedom from interference or restraint, and positive liberty, or power and agency. The Leeward and Windward Treaties of 1739, in this respect, became guarantors

⁸⁶ British CO 137/19.

⁸⁷ Trevor Burnard, "European Migration to Jamaica, 1655-1780," *William and Mary Quarterly*, 3rd series, 53 (1996): 777.

⁸⁸ Burnard, Mastery, Tyranny, and Desire, 20.

⁸⁹ Isaiah Berlin, *Four Essays on Liberty* (New York: Oxford University Press, 1969) 118-72.

of negative liberty for the Maroons in the eyes of the British, but sacred and vital seals of positive liberty to the Maroons themselves.

The first notable statement in both treaties is the British assertion that their negative liberty had been impinged upon by the Maroon actions. In the Windward Treaty, this claim is encoded in the reference to the Maroons as "rebellious Negroes;" in the Leeward Treaty, the British make the same claim by describing how "Captain Cudjoe, Accompong, Johnny, Cuffee, Quaco, and several other negroes, their dependents and adherents, have been in war and hostility for several years in the past." To the British, the Maroon insurgency was of concern primarily because it impeded the economic success of Jamaica, and made expansion of British settlement and cultivation infeasible; further, maroonage created a constant threat of a violent and abrupt end to the slavery system through an island-wide slave revolt. In addition to British fears of violent retribution, the prospect of such a revolt also forced the British to contemplate the end of their lucrative sugar plantations. When Governor Trelawny spoke to the Jamaican Assembly in 1737, he complained that "the Rebellious Negroes... have long infested the country, and still continue to endanger the Lives and damage the Fortunes of many Inhabitants."92 Earlier yet, in 1730, the Jamaican Board of Trade wrote to the Duke of Newcastle concerning the situation in Jamaica; the Board of Trade forecasted that the Maroons "Might come down in a Body and destroy a whole Precinct before they could be stopped (if at all) for one such alarm, thousands of slaves would joyn the Victors, All equally fond of Liberty!"⁹³ To the British, the matter of possessing the positive liberty to prosper economically was never a question for consideration; only the lack of the negative liberty of freedom from the devastation, or fear of potential devastation, wrecked by Maroon raiders inhibited their march to material gain. So intent were the British on securing their negative liberty in the treaties of 1739 that minute detail was incorporated to ensure it. The fifth clause of the Leeward Treaty includes a provision that the Maroons "have Liberty to hunt where they shall think fit, except within three Miles of any Settlement, Crawl or Pen."94 The thirteenth clause of the Windward Treaty similarly states "[t]hat Captain Quao, nor any of his People, shall hunt within Three Miles of any Settlement." So threatening was the mere presence of Maroons to British security that the treaties go into this extensive detail keeping the Maroons at least three miles from the sites of plantocratic

⁹⁰ British C.O. 137/56, June 30, 1739.

⁹¹ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

⁹² British C.O. 137/56, Trelawny to Newcastle, July 7, 1737.

⁹³ British C.O. 137/21, Board of Trade to Newcastle, October 7, 1730.

⁹⁴ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

⁹⁵ British C.O. 137/56, June 30, 1739.

economic endeavors. Thus, the treaties must be viewed primarily as an attempt by the British to secure their own negative liberty. So essential was this specific negative liberty to the British that they were willing to engage in uncharacteristic acts, including participation in the sealing of the treaties with the Asante blood oath, to procure it.

To the Maroons, the treaties of 1739, and particularly the Leeward Treaty, of which an original copy is kept in Accompong, are sacred documents. Intriguingly, the Maroons possessed sufficient agency at the time of the treaty signing to force the British to seal the Leeward Treaty with the Asante oath, which "involved the drawing of blood from both the white officers and the Maroon leaders, into which rum was poured, and this mixture was drunk by both parties."96 This oath is unbreakable within the cosmology of the Maroons. By sealing the treaty with this oath, the British were agreeing, in the minds of the Maroons, to recognize primarily the autonomy of the Maroon people. The second clause of the Leeward Maroon Treaty begins: "[t]hat Captain Cudjoe, the rest of his Captains, adherents and men shall be forever hereafter in perfect state of freedom and liberty." To the Maroons, this was not a grant of freedom from interference by the British, but rather a long-overdue acknowledgement of Maroon power. The Maroons did not conceive of themselves as fighting for freedom from the British; even freedom from the institution of slavery was won, in the Maroon mind, in the very act of maroonage. Rather, the Maroons agreed to the treaty not only to end the unbalanced war in which the small number of Maroons would eventually be overwhelmed by the numerical and material advantages of the British, but also to have the British formally acknowledge the autonomy of the Maroons.

Indeed, the backlash infamously written into Maroon history can be read as evidence of the threat the acknowledgement of this positive liberty posed to the British. Dallas, the most oft-quoted early historian of the Jamaican Maroons, writes that:

Cudjoe...appeared to be in great trepidation...Colonel Guthrie advanced to him holding out his hand, which Cudjoe seized and kissed. He then threw himself on the ground, embracing Guthrie's legs, kissing his feat, and asking his pardon. He seemed to have lost all his ferocity, and to have become humble, penitent and abject. The rest of the Maroons, following the example of their chief, prostrated themselves, and

⁹⁶ M. Campbell, 115.

⁹⁷ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

expressed the most unbounded joy at the sincerity shown on the side of the white people.98

Campbell reports that modern Maroons unanimously reject this narrative.⁹⁹ Other early historians who write about the Maroons, such as Long, do not include such an account. Not only is this portrayal idiosyncratically stylized to conform to a servile-coon stereotype that contemporarily justified slavery as the natural condition of innately subservient Africans, but it is completely discordant with the power Kojo obviously had in negotiating the terms of the treaty. The Maroons wielded sufficient positive liberty to retain the presence of the more recent fugitive slaves within their ranks, despite the wishes of Governor Trelawny and the Jamaican Assembly, in securing the ability of those who had been with the Maroons for fewer than two years to remain Maroons.¹⁰⁰ Furthermore, the vivid image of the British officers being compelled to seal the treaty with the Asante blood oath compellingly denies the veracity of a genuflecting, quivering, servile Kojo. On reflection, such a grotesque image can be viewed only as an over-blown response to the threat posed by the power of the Maroons.

Another example of British efforts to prevail in the realm of symbolic representation where they had failed militarily is the distortions of aspects of the Nanny myth. The Maroons believe that Nanny, using her religious obeah powers, was capable of catching bullets. To the Maroons, this capacity represented the connection of Nanny to the spirits, and the support for and presence of the spirits for the battles in which the Maroons fought.¹⁰¹ According to Kamau Brathwaite, the distortion of this mythical power of Nanny's was first preserved in the written record in H.T. Thomas' Untrodden Jamaica, written in 1890. Terrified by the power of obeah and humiliated by military defeat at the hands of a small group of undersupplied Blacks led by a woman, the British turned the myth of Nanny-as-bullet-catcher into an obscene and lascivious tale. Under the British permutation, Nanny became renowned for being able to catch bullets in her buttocks, and return them to the British through gaseous expulsion. 103 By re-imagining Nanny as a degraded, absurd, and sexually objectified woman, the British were able to assuage the discomfort and terror that accompanied an awareness of the true extent of the positive liberty of the Maroons. The sexual

⁹⁸ Dallas, 55-56.

⁹⁹ M. Campbell, 114. ¹⁰⁰ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

¹⁰¹ Gottlieb, 74.

¹⁰² Brathwaite, 120-1.

¹⁰³ Brathwaite, 121.

depravity of African women was a more familiar territory than the success and power of an *obeah* woman.

However menaced the British felt by the evidence of Maroon positive liberty, and whatever extraordinary and base measures the British were willing to enact, culturally or legally, to curtail these, the treaties still read largely as documents formed by those who unquestionably privileged negative liberty. The Leeward and Windward Treaties both go to extensive lengths to detail the rights of the Maroons to live on the lands granted to them, and to function agriculturally and commercially without interference. The treaties also ensure legal autonomy of Maroons for matters pertaining to the Maroon community. While the Maroons were not opposed to the negative liberty guaranteed in these clauses, the most significant and persistent aspect of the treaties to Jamaican Maroons is the evidence of positive liberty the mere existence of these treaties, and the Asante blood oath under which the Leeward Treaty was signed, connotes.

To the British, the Maroons began as troublesome cattle; after the cattle transfigured into a military force with which to be reckoned, the British simply re-analyzed the Biblical text, and re-assigned the Maroons to the category of quasi-White Hamites. In this process, the British, while reluctantly and in a limited fashion recognizing the positive liberty of their foes, perceived a victory in ensuring the terms of the treaty safeguarded their own treasured negative liberty. Both Maroon and British were deeply satisfied with a treaty that seemed to accord to each party what each most cherished.

MAROON FOUNDATION STORIES AND THE TRANFORMATION OF KROMANTIS INTO MAROONS

When the Maroons secured their autonomy from the British with the Windward and Leeward Treaties, they were recognized, for the first time, as a unified social and political unit. The process of becoming such a unified society, however, was far more complex than the simple signing of a treaty. The proto-Maroons had to abandon some aspects of their home cultures, alter others, and create entirely new cultural beliefs and behaviors to emerge as a cohesive ethnicity by 1739. Retention of specific characteristics of individual African cultures, in the forced pluralism of mountains and Cockpits of Jamaica, was untenable. Matrilineal and patrilineal societies who spoke different languages and worshipped different deities were forced to abandon old loyalties and

¹⁰⁴ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739; *Windward Treaty*, C.O. 137/56, June 30, 1739.

schemata to survive. Though political factionalism has had a great impact on post-Treaty Maroons, by the mid-eighteenth century, Maroons no longer conceived of themselves as anything other than the children of Nanny. The consolidation of various ethnic identities into a Kromanti identity between 1655 and 1739 was an imperative step in the eventual transformation to Maroon. By the time the Maroons gained recognition and autonomy from Britain in 1739, their myths, stories, and cultural practices had become entirely Maroon-specific.

Central to comprehending Maroon identity is an understanding of the myths of Queen Nanny, considered by Maroons to be the progenitor of their nation. According to the Jamaican Ministry of Youth, Education, and Culture, Nanny is the only woman who is a national hero of Jamaica; she is also the only Maroon. Most modern Maroons assert that Nanny was never a slave. Major Charles Aarons, Deputy Chief of the Moore Town Maroons, claims, "The Maroons of Jamaica had never been slaves at any time." This declaration derives from the assertion that Nanny herself was never a slave, but rather an Asante queen who relocated to Jamaica with her own retinue of slaves to aid her troubled people.

The existence of an apical ancestress as the "mother of all" members of an ethnic group or clan is a tradition brought from the Akan states and other matrilineal societies in Africa. The Asante, despite their complex, centralized bureaucracy and military, lived within a social order predicated upon membership in one of a very few matriclans. As a child's status derived from that of her or his mother, the fact that all Maroons descend from Nanny, who was never enslaved, makes Maroon freedom a birthright. Strict matrilineality does not seem to have been retained by the Jamaican Maroons as it was by other Maroon groups, such as the Saramaka of Suriname, where each *lo*, or matriclan, traces its origin to a woman who fled the Dutch plantations during the First Times. Elements of this matrilineal descent system, however, may have persisted in the fact that in earlier times, only Maroon women were allowed to marry outsiders and bring them into Maroon lands. Even if the Jamaican Maroons gradually abandoned strict matrilineality as a concession to the diversity of ethnic backgrounds of the community, or due to disruptions of family and kinship systems wrought by the Middle Passage and plantation life, the centrality of Nanny to Maroon identities is likely a relic of this background. Because all Maroons identify as the children of Nanny,

¹⁰⁵ Jamaican Ministry of Youth, Education, and Culture, *Jamaica's National Heroes*, 2001,

http://www.moec.gov.jm/heroes/nannycont.htm (11 May 2004).

¹⁰⁶ Gottlieb, 67.

¹⁰⁷ McCaskie, 26.

¹⁰⁸ R. Price.

¹⁰⁹ Daniel Lee Schaefer, "The Maroons of Jamaica" (Ph.D. diss., University of Minnesota, 1973), 233f.

the kinship metaphor is a powerful indicator of Maroon solidarity. Though Nanny may have been an Asante queen, and some proto-Maroons may have derived from states in conflict with the Asante, or from non-Akan/Kromanti backgrounds, all of Nanny's children were exclusively Maroon.

As maintained by many versions of the Nanny myth, Nanny came to Jamaica with her sister, who is variously named Sekesu, Sukasi, Sekeri, Sue, Sarah, Opinya, Nellie, or Grace. 110 The myth explains the diverging history of Maroons and slaves as beginning in the split between the sisters, wherein:

> the children of Nanny are said to have grown up to become the Maroon 'nation,' while those of the other sister grew up to become a different 'nation' of people whom the Maroons refer to as 'niega'-the descendants of those who were kept in a condition of slavery until the British government decided to emancipate them in 1834.¹¹¹

The kinship between Maroons and non-Maroons in the sisterhood of Nanny and Sekesu is most often invoked by non-Maroons seeking spiritual or supernatural help from Maroons. 112 Within the Maroons' cosmology, however, difference is the crucial component of this aspect of the Nanny myth. The Maroons view themselves as a different nation than non-Maroons.

Indeed, shortly after the signing of the 1739 treaties, the strength of this new ethnic identification would be put to the test. In 1742, some of the men in Kojo's village

> had entered into a conspiracy with slaves on neighboring plantations and were inciting them to revolt. It was a group of Coromantees within Cudjoe's band and they, allied with Coromantee plantation slaves, planned to 'cast off all those there that were born in the woods, or came from other countries,' and establish their own Coromantee society in the interior. 113

This incident truly gauged the loyalty of the Maroons to a new identity; the Kromanti identity, so instrumental to the development of the Maroons, had become subsumed under the Maroon identity

¹¹⁰ Gottlieb.71.

¹¹¹ Kenneth Bilby, "'Two Sister Pikni': A Historical Tradition of Dual Ethnogenesis in Eastern Jamaica," Caribbean *Quarterly* 30 (1984): 13. ¹¹² Gottlieb, 73.

¹¹³ Kopytoff, *The Maroons of Jamaica*, 181.

with the signing of the treaty. This was the most dangerous kind of factionalism; factionalism along political lines posed not nearly so great a threat to Maroon identity as the revolt of some Maroons against both the terms of the 1739 treaty and against the mythology of Nanny and the founding of the Maroon ethnicity. Kojo dealt with this problem accordingly, and sent the four Maroon ringleaders for trial by the British government. "Two were sentenced to die and two to be transported," but the Governor showed clemency and sent the Maroons back to Kojo. 114 Kojo hung the two sentenced to death and sent the other two to the Governor to be deported from the island. 115

So fundamental to the Maroon worldview is the Maroon/non-Maroon chasm that its maintenance has often provoked conflict. For example, as the British endeavored to negotiate a peace with the Leeward Maroons under the direction of Kojo prior to the signing of the 1739 treaty, "the most delicate question...was the status of Maroons who were relative newcomers to Maroon societies." To the British, allowing for the freedom of recently escaped slaves was an enormously dangerous proposition, one which could encourage other slaves to revolt, run away, and otherwise wreak havoc on the plantation system; to the Maroons, any and all Maroons, no matter how recently they had joined the communities, were the children of Nanny, and thus free. In negotiating with the Leeward Maroons, Governor Trelawny advocated for either the return of recently (those who had been in the woods for less than two to five years, and variously suggested by members of the Jamaican Assembly) fugitive slaves, or for their use "as slaves in the publick service." An interesting resolution was reached in the final draft of the treaty. The second clause reads:

That the said Captain Cudjoe, the rest of his Captains, Adherents and Men, shall be for ever hereafter in a perfect State of Freedom and Liberty, excepting those who have been taken by them, or fled to them within two years last past, if such are willing to return to their said Masters and Owners, with full Pardon and Indemnity from their said masters or Owners for what is past. Provided always, That if they are not willing to return, they shall remain in Subjection to Captain Cudjoe, and in Friendship with us, according to the Form and Tenor of this Treaty.¹¹⁸

¹¹⁴ Kopytoff, *The Maroons of Jamaica*, 181.

¹¹⁵ Kopytoff, The Maroons of Jamaica, 181.

¹¹⁶ M. Campbell, 111.

¹¹⁷ British C.O. 137/56, Trelawny to Guthrie, February 23, 1738.

¹¹⁸ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

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¹¹⁴ Kopytoff, The Maroons of Jamaica, 181.

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¹¹⁶ M. Campbell, 111.

¹¹⁷ British C.O. 137/56, Trelawny to Guthrie, February 23, 1738.

¹¹⁸ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

This clause notably records a tone of deference on the part of the British who, with all of the tactical and material advantages, could not defeat the Maroons. In essence, the latter half of the second clause, which permits the more recent fugitive slaves to remain with Kojo and the other Maroons without penalty, annuls the first half of the clause, wherein such recent fugitives were to be returned to their former masters if the former slaves so chose; as might be expected, there is no evidence of any Maroon choosing to return to the plantation. Here, the British accepted the agency of the Maroons to define Maroon identity. However, the British establish Kojo as a proxy master, in a manner similar to the Windward Treaty's deeding of land to Nanny as an individual. Once brought to the point of ceding military defeat by signing a treaty, the British attempted to shift tactics by forcing the Maroon societies into the mold of the emerging bourgeois-individualistically-oriented British plantocracy.

The Maroons so clearly saw themselves as distinct from the non-Maroon Blacks that they were willing to wage war to defend the honor they perceived in that distinction. As the children of Nanny, Maroons believed themselves to be separate from and superior to the children of Sekesu, who remained a slave out of trepidation. Before the Treaty of 1739, fugitive slaves continuously joined the Maroons; through the act of maroonage, and the subsequent oath of incorporation, these fugitives became children of Nanny. After the signing of the treaty, however, the barrier between Maroon and non-Maroon was no longer permeable. To the British, the 1739 treaties marked a need to shift from a paradigm of military conquest to tactics of aggressive cultural sabotage. The guerilla warfare tactics of the Maroons had proven too difficult and costly for the British to defeat; seeking to maintain colonial power, the British instead attempted a combined campaign of isolation and limitation in prohibiting the Maroon acceptance of new fugitives, and assimilation, in attempting, through law, to transform the African cultural sensibilities into acquisitive individualism. Once the British understood that the ferocity of Maroon combat would not brook a return to subjugation, they were forced to shift tactics to utilize a more divisive approach. The British understood that allowing the development of a unified race consciousness of Black Jamaicans would create an untenable situation for the minority British; in facilitating the fragmentation of identity by creating a rigid barrier between Maroon and non-Maroon through the clause of the Treaties of 1739 that forced the Maroons to return fugitive slaves, the British helped ensure the security of their position well into the twentieth century.

The perception of the tenuousness of their position is evident in the diaries of White Jamaicans of the eighteenth and nineteenth century, such as those of Thomas Thistlewood and Lady

Nugent, which reveal an omnipresent fear of slave revolt. An anonymous Jamaican essay published in 1746 proclaimed "if some Stop not be put to it [the buying of Africans], or if better Discipline not be observed, the Island must be overrun, and ruined by its own Slaves." Monumentally outnumbered and perpetually paralyzed by fear for their lives and economic viability, the British used divisive tactics as the only viable means of maintaining their position. Evidence for the partial success of the British efforts was demonstrated by the ending of Tacky's Rebellion, the largest slave rebellion on the island, with a Maroon sharpshooter killing Tacky. This divide-and-conquer British policy neatly fit with the mythological constructs used by the Maroons to forge a cohesive identity of their own. The Maroons did not think in terms of racial consciousness or unity, but rather in terms of fealty to their own people, the Maroons. They were not thus betraying those whom they left behind. Whatever nefarious aims of the British may have been accomplished through this aspect of the treaties, the Maroons accomplished that which they had endeavored to do: establish an independent community, safe from, and outside of, the hegemonic order.

The Windward and Leeward Treaties of 1739 institutionalized Maroon identity. No longer "rebellious Negroes," the former fugitives now had rights and duties in the eyes of the British crown; more importantly, to the Maroons, they had rights and duties that were sworn upon by a sacred blood oath, sworn to the gods. The cohesion of the Maroons into a singular ethnic identity occurred within the period between 1690, and the revolt of the Kromantis in Clarendon, and 1739, or one or two generations. Though amazingly rapid, this identity would be a powerful force in Jamaican history. This distinct identity would ensure Maroon survival, and it would also create massive conflict with the interests of other Africans in Jamaica.

THE RIFT BETWEEN THE CHILDREN OF NANNY AND THE CHILDREN OF SEKESU

The feature of the treaties that has proven the most problematic to scholars and Maroons alike is the clause that altered the role of Maroons from allies of fugitive slave to the aggressive pursuers and captors of fugitive slaves and rebels. In the Leeward Treaty, this dictate is contained in the ninth clause, which reads:

¹¹⁹ An Essay Concerning Slavery and the Danger Jamaica is Expos'd to From Too Great Number of Slaves...(London, 1746), 18.

[t]hat if any Negroes shall hereafter run away from their Masters or Owners, and fall into Captain Cudjoe's Hands, they shall immediately be sent back to the Chief Magistrate of the next parish where they are taken; and those that bring them are to be satisfied for the Trouble, as the Legislature shall appoint.¹²⁰

In the Windward Treaty, the language is even stronger. In this treaty, the fourth clause reads:

[t]hat the said Captain Quao and his People shall be ready on all Commands the Governor or the Commander in chief for the Time being shall send him, to suppress and destroy all other Party and Parties of rebellious Negroes, that now are or shall from Time to Time gather together or settle in any Part of this Island, and shall bring in such other Negroes as shall from Time to Time run away from their respective Owners, from the Date of these Articles.¹²¹

An attempt to interpret Maroon history through a narrative structure of rebellion and resistance demands that these clauses be seen as acts of betrayal on the part of the

Maroons; this interpretation conflicts with the rebellion theorists' substantiated belief that the Maroons negotiated with the British as military equals, if not superiors. Other interpretations posit that the Maroons were overwhelmed by the superior diplomatic skill of the British, who employed the treaty as the most effective tool from the arsenal of empire. However, this clause cohered perfectly with the Maroon notion of self and liberty. Even if the children of Sekesu could, even months before the signing of the treaties in 1739, become the children of Nanny, the Maroons always observed a strict divide between the two; those bound by the Asante blood oath, the men and women of the Maroon communities, constituted a closed and secretive society. Acts perceived as hostile toward the slaves no more violated the code of Maroon ethics than violence against the British; Maroon identity was conceived along cultural, not racial, lines. Indeed, the Maroons constructed their own identity as the native children of the land of Jamaica's interior which they knew so well, and whose original inhabitants, the Arawak, had all been either killed or assimilated into Maroon society by the seventeenth century. If the Maroons constituted a unique, cohesive,

¹²⁰ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

¹²¹ British C.O. 137/56, June 30, 1739.

¹²² M. Campbell.

¹²³ Kopytoff, The Maroons of Jamaica.

¹²⁴ **Zins**

exclusive, and indigenous group, then the acts of violence committed to comply with the return of fugitive slave clauses become comprehensible as the acts of a native population against a perceived settler population. As Mahmood Mamdani elucidated in a radically different context: "[t]he very political character of native violence made it difficult to think of it as an impulse to genocide. Because it was derivative of settler violence...[it] appeared less of an outright aggression and more a self-defense in the face of continuing aggression." While the comparison may seem extreme, the consequences of returning fugitive slaves and quashing slave revolts were dire to the lives of those still enslaved. The Maroons, however, were simply acting in a manner conducive to the maintenance of their positive liberty and autonomy by treating with the British settler population, from whom they could gain recognition of the positive liberty, in addition to the important negative liberties secured in the treaties.

The nature of the Maroon's struggle against the British, which ended in 1739, and the later rebellions was widely divergent. Much of this difference originated in the economic and social changes which occurred in Britain and its colonies between the early and late eighteenth century. After the Glorious Revolution of 1688, Britain and its colonies slowly embarked on a transformation from late seigneurialism to capitalism; such an alteration represented an idealistic shift for the British from an underlying belief in reciprocal obligation to one of bourgeois individualism. Rebels and runaways who later became Maroons sought to create a separate society outside of the hegemonic order. Because of this, it was entirely logical to sign a treaty with the British that would entail obligations to return runaways and quell rebellions, as long as the autonomy of the Maroons was recognized. Later rebels, like L'Ouverture in Haiti, appropriated the ideology of capitalism to demand "not secession from the dominant society [as did the Maroons] but...[rather to] join...it on equal terms."126 Maroons had sought to escape from the slave polity and form their own society where their own cultural norms, variously construed as "African" or "Kromanti," but more accurately described as a unique syncretic creation within which constituent elements from Akan and other African societies prevailed. Seventeenth-century and eighteenth-century Maroons did not believe in the universal rights of man, nor in the ultimate ascendance of the individual; later rebels

¹²⁵ Mahmood Mamdani, *When Victims Become Killers: Colonialism, Nativism, and the Genocide in Rwanda* (Princeton: Princeton University Press, 2001), 10.

¹²⁶ Eugene D. Genovese, From Rebellion to Revolution: Afro-American Slave Revolts in the Making of the Modern World (Baton Rouge, LA: Louisiana State University Press, 1981), xvii-xx.

did. This paradigm conflict generated enormous contention between the Maroons and non-Maroons in Jamaica.

One of the provisions of the treaty of 1739 was that the Maroons agreed to

suppress and destroy all other Party and Parties of rebellious Negroes, that now are or shall from Time to Time gather together or settle in any Part of this Island, and shall bring in such Negroes as shall from Time to Time run away from their respective Owners, from the Date of these Articles.¹²⁷

The Maroons faithfully adhered to this component of the treaty, and, through these actions, created great enmity between themselves and the slaves. Indeed, the slaves resented the perceived elitism of the Maroons, who, through the treaties of 1739 and the land grant to Nanny, had been given a status elevated and exalted beyond their own. The mutual hatred was exacerbated in 1760, when the Scot's Hall Maroons helped the British defeat Tacky's Rebellion, "a revolt of at least 400 slaves, which triggered other revolts, one of which engaged about a thousand." Tacky was a Kromanti; thus, by 1760, the Maroon identification as Maroon, rather than Kromanti, was firmly entrenched. To the non-Maroons, the Maroons were agents of repression, and haughty flaunters of privilege; to the Maroons, the non-Maroons represented the cowardly children of Sekesu, who "chose to avoid bloodshed by remaining a slave."

The Maroons gained renown for their effectiveness in quashing slave rebellions and catching runaways. In addition to Tacky's rebellion, the Maroons killed Three-Finger Jack, who led a group of sixty runaways in raiding plantations in St. David's parish; when the Maroons came upon Three-Finger Jack and surprised him, they killed him "cut off his head and arm, and carried them to Kingston for a £100 reward." Not only did Three-Finger Jack's defeat anger his followers, and all those still enslaved on the plantations who derived much more hope for their own freedom from the actions of men such as Three-Finger Jack than they did from the apparent restorationist self-interest of the Maroons, but the manner in which the Maroons dealt with Three-Finger Jack's body served to intensify fear of the Maroons.

¹²⁷ British C.O. 137/56, June 30, 1739.

¹²⁸ Genovese, 1-50.

¹²⁹ Kopytoff, The Maroons of Jamaica, 235.

¹³⁰ Gottlieb, 71.

¹³¹ Kopytoff, *The Maroons of Jamaica*, 237-8.

In 1795, a community of runaways known as the Congo Settlement, which had been raiding plantations and living autonomously for twenty years, was discovered by a group of Maroons. The settlement "was dispersed, some of the negroes returning to the estates to which they formerly belonged, and others surrendering with the Maroons at the termination of the [Second Maroon] war." In 1824, the Maroons destroyed another independent runaway settlement in the Cockpits. Regular parties of Maroons sought and captured runaways, for whose return they were paid. This source of income was vital to the Maroons, who never established an economy autonomous of the rest of Jamaica, and who were prevented by treaty from growing the most profitable cash crop, sugar. In the years prior to the treaty, the military successes of the Maroons inspired many plantation slaves to rebel or run away; in the years following the treaty, virtually every attempt to rebel or flee was thwarted by the Maroons. The Maroons thus became feared and despised by the vast majority of non-Maroons.

Even after Emancipation, and the disappearance of the crucial income from the capture of runaway slaves, the Maroons continued to honor the terms of the treaty. In 1865, Paul Bogle led nearly 500 Blacks on a march to Morant Bay to protest injustices, such as the disenfranchisement of the Blacks and the plight of the poor. Bogle believed that he had the support of the Windward Maroons, and told the others involved in the protest that "the Maroons is our back." The Jamaican government called the Maroons to assist in crushing the "rebellion," and, ultimately, the Windward Maroons captured Paul Bogle, who was later hung, and aided the colonial government in executing 438 people who participated. Jamaicans still cite the "betrayal of Paul Bogle" as the major reason for dislike of and prejudice towards Maroons.

Long before the Morant Bay incident, the hatred and resentment between the Maroons and non-Maroons exploded in 1795. In July of that year, two Trelawny Town Maroons were convicted "by the evidence of two white people, of killing tame hogs." The British chose to punish the convicted Maroons by having them flogged by a slave. The embittered slaves were thrilled at the opportunity to exact revenge upon the Maroons, and, as the Maroons "went through the town and plantation they were laughed at, hissed, and hooted by the slaves." To the Maroons, this

¹³² Dallas, 101.

¹³³ Kopytoff, *The Maroons of Jamaica*, 238.

¹³⁴ British C.O. 137/23, Trelawny to Board of Trade, March 30, 1739.

¹³⁵ M. Campbell, 249.

¹³⁶ Jamaican Ministry of Youth, Education, and Culture.

¹³⁷ Dallas, 145.

¹³⁸ Dallas, 145.

represented the vilest and most unacceptable degradation; to be flogged was associated with the inferior status of a slave. For a Maroon, particularly of the generation or two following those who had fought in the First Maroon Wars and secured independence in the Treaties of 1739, who would have been raised on stories of the glory of freedom and the superiority of the Maroons, to be flogged by a slave was an unthinkable affront to Maroon identity. This conflict sparked the Second Maroon War, which ended only with the exile of the rebelling Maroons of Trelawny to Nova Scotia.

The lessening of the sharp divide between Maroon and non-Maroon in recent times reflects as much the acceptance of the ideology of bourgeois individualism by the Maroons as it does the greater contact between the groups and the infusion of Pan-Africanist and Rastafarian ideas. Indeed, not only do modern Maroons deny ever having owned slaves, but they also deny that Maroons ever returned fugitive slaves or participated in quashing slave rebellions. Originally, the Maroons entered an agreement with the British that was based on a shared understanding of reciprocal obligations; this belief was as much a part of most African traditions, including Akan, as it was integral to feudal Europe. As ideas held by both slaves and masters changed to favor a belief in individual rights and equality as a function of participation in the dominant system, the Maroons became an increasingly stigmatized relic of the past, reviled by the non-Maroons.

SLAVERY IN AFRICA AND AMONGST THE MAROONS

In addition to frequent and passionate accusations of betrayal, modern Jamaicans often deride the Maroons for having been a slaveholding elite. Slavery as practiced by the Maroons has been neglected as a topic of study, and direct data, beyond the incomplete, fragmentary, and inconsistent census records kept by the British superintendent of Maroon communities and a few cursory mentions in private correspondences, are unavailable. By applying the limited available information to analytic frameworks developed to understand slavery in Africa and the New World, however, some extrapolation about the practice of slavery by the Maroons is possible. Fortunately, data concerning the practice of plantation slavery in Jamaica abound. In comparing these two institutions, it is useful to adopt the approach of Ira Berlin in *Generations of Captivity: A History of African-American Slaves* to distinguish between societies with slaves and slave societies. ¹⁴⁰ Societies with slaves were characterized by small slaveholdings and a permeable and fluid line between slavery

¹³⁹ Reid

¹⁴⁰ Ira Berlin, *Generations of Captivity: A History of African-American Slaves* (Cambridge, MA: Harvard University Press, 2003), 8-9.

and freedom. For example, enslaved Africans in seventeenth-century New Netherlands often lived and worked alongside Europeans and Native Americans of all ethnicities, and were frequently utilized as interpreters amongst Europeans of different nationalities; the occupations and lives of free people and enslaved people in this setting, and the relative degree of agency possessed by each, were not so distinct.¹⁴¹ This relative mutability did not necessarily translate into more humane treatment of slaves. Sometimes, the extraneousness of slaves in societies with slaves to market value rendered them more vulnerable to brutality. By contrast, slave societies positioned "slavery at the center of economic production, and the master-slave relationship provided the model for all social relations."142 In societies with slaves, slave owners did not comprise the entirety of the elite as they did in slave societies. Justification for slavery in slave societies was predicated upon an ostensible rule of nature or of a god or gods. 143 Slavery as practiced by the British in Jamaica was certainly a typical example of slave society. Because of an absence of data, it is difficult to make such a strong assertion about slavery as practiced by the Maroons. However, by analyzing slavery as practiced in Kongo, Asante, and Igbo societies, and by examining the transformations in culture that occurred between sale in Africa and maroonage in Jamaica, it is possible to assert that Maroon society was a society with slaves, in which the primary role of slavery was to reinforce the ethnic uniqueness of the Maroons, and the kinship system, and not the master-slave relationship, was the primary social model.

Slave ownership was, indeed, a crucial facet of the West African economy. Slavery was such an integral element of West African culture because "slaves were the only form of private, revenue-producing property recognized in African law." Under European law, private land ownership, and the revenue produced thereof, was privileged. Nobility was contingent upon the ability to will land, and, most crucially, the wealth accrued through ownership of the land and sale of its produce, to offspring. By contrast, African land was owned corporately. Instead of taxing land, as was done in Europe, many centralized African polities, such as the Kingdom of the Kongo, accumulated revenue by taxing slave owners based on the numbers of slaves owned. While Europeans controlled land, wealthy Africans controlled labor. Wealthy and entrepreneuing Africans invested in slaves as a dependable and secure source of reproducing wealth, and African states utilized slaves both to

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¹⁴¹ Berlin, Generations of Captivity, 32.

¹⁴² Berlin, Generations of Captivity, 8-9.

¹⁴³ Berlin, Generations of Captivity, 10.

¹⁴⁴ John Thornton, *Africa and Africans in the Making of the Atlantic World*, *1400-1800* (New York: Cambridge University Press, 1998), 74.

¹⁴⁵ Thornton, 77.

increase revenue, through agricultural production and public works, and also in administrative and military capacities.¹⁴⁶ These practices pervaded western, west central and central Africa, in all of the regions from which people involved in the trans-Atlantic trade were taken. To the survivors of the Middle Passage, slavery itself was certainly not a novelty.

Because of the obvious cruelty and devastation wrought by the trans-Atlantic slave trade, many post-colonial authors have tended to artificially polarize pre-colonial African society into a White-as-evil, Black-as-victimized duality. Clearly, wealthy Africans controlled the terms of the trans-Atlantic trade as readily as they controlled the internal commerce in slaves. For example, Benin began to restrict the trans-Atlantic slave commerce as early as 1520, and had effectively stopped participating in this traffic by 1550, though, under later rulers, Benin re-engaged in the trans-Atlantic trade. In *Africa and Africans in the Making of the Atlantic World, 1400-1800*, John Thornton proposes that local labor needs largely dictated what restrictions were placed on trans-Atlantic trade, and to what extent given political entities participated in this commerce. Contemporary Africans did not appear to view themselves as victims of European caprice, military strength, or economic or political coercion; rather, to the wealthy Africans who benefited from the slave trade, it was simply another market within which to trade a dependable commodity. Consequently, those Africans who survived the Middle Passage, while almost certainly not often of the class who directly benefited from the slave trade, originated in a social paradigm in which slave ownership was the single most important marker of status.

The Akan states of the Gold Coast have long been asserted to be the societies from which the majority of the Jamaican Maroon population, including the Maroon leaders Kojo and Nanny, derived. Thus, it is instructive to examine slavery as practiced specifically within Asante. Formation of the Akan states (notably Asante and Fante) was catalyzed largely "by the European mercantile presence along the Gold Coast [in the fifteenth and sixteenth centuries]...[g]old was exchanged for slaves and otherwise unfree labour, much of it imported into the Gold Coast by Europeans from other parts of western Africa." The economic process of gold production and export from the Akan states both created and reinforced slavery: mining heavily utilized slave labor, and slaves used in mining required a surplus of food that could be produced by slaves. Indeed, as Claude Meillassoux argues, "a gross surplus-product can be created only through the limitation of

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¹⁴⁶ Thornton, 89.

¹⁴⁷ A.F.C. Ryder, *Benin and the Europeans* (New York: Humanities Press, 1969), 56-90.

¹⁴⁸ Thornton, 110-1.

¹⁴⁹ McCaskie, 25.

demographic growth and the social allocation of children," which, in a society like Asante, where matrilineal kinship controls land access, is possible only through slavery. 150

In Asante, "full citizenship rights...were exclusively vested in and defined by membership of an *abusua* [matrilineal clan] and, more broadly, an *abusua kesee* [territorially dispersed matriclan]."¹⁵¹ Land was relatively plentiful in Asante, as elsewhere in Africa. Due to this abundance of land, labor was in constant demand, and free people, who had the land of their own matrilineage to work, could not be prevailed upon to labor on another's land for wages.¹⁵² For example, kola nuts, long valuable in the trade within Africa, and also profitable for trade with Europeans, come from matrilineally-owned trees; "hence kola nuts were virtually a free good for lineage members, [and] additionally labor could increase production considerably."¹⁵³

Within this context of abundant land, to which all members of a matrilineage had usage rights, modes of increasing production through slavery were gender-specific. In matrilineal societies, a man's descendents are his sister's children. A male outsider in an Akan community would have no socially recognized children; thus, the male condition of slavery in Akan society is bound to his "social incapacity...to reproduce socially -- that is, the slave's juridical inability to become kin." A male slave had no socially recognized offspring, and, thus, perpetually produced surplus goods for a lineage not obliged to produce for him in his old age. Women, however, formed the bulk of the slave population in Africa, while men were the predominant export to the Americas. Women were in high demand as slaves, not only for their agricultural labor, since crop growing is women's labor in Akan societies, but also for their reproductive capacity. Children of a free man and a slave woman would become part of the father's lineage through the establishment of a slave branch of the *abusua*; without brothers to advocate for the slave woman's children, they became a means by which a free male could socially reproduce himself. So prevalent was this practice that, eventually, the

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¹⁵⁰ Claude Meillassoux, *The Anthropology of Slavery: The Womb of Iron and Gold*, trans. by Alide Dasnois, (London: The University of Chicago Press, 1991), 35.

¹⁵¹ McCaskie, 88.

¹⁵² Anthony G. Hopkins, *An Economic History of West Africa*, (New York: Columbia University Press, 1973), 24.

¹⁵³ A. Norman Klein, "The Two Asantes: Competing Interpretations of 'Slavery' in Akan-Asante Culture and Society," in *The Ideology of Slavery in Africa*, ed. Paul E. Lovejoy (Beverly Hills, CA: Sage Publications, 1981), 153.

¹⁵⁴ Meillassoux, 35.

¹⁵⁵ Claire C. Robertson and Martin A. Klein, "Women's Importance in African Slave Systems," in *Women and Slavery in Africa*, eds. Claire C. Robertson and Martin A. Klein (Madison, WI: The University of Wisconsin Press, 1983), 4-5.

¹⁵⁶ Susan Herlin Broadhead, "Slave Wives, Free Sisters: Bakongo Women and Slavery c. 1700-1850," in *Women and Slavery in Africa*, eds. Claire C. Robertson and Martin A. Klein (Madison, WI: The University of Wisconsin Press, 1983), 170-171.

Asantehene, or ruler of the Asante, made it illegal to ask a person about his or her antecedents.¹⁵⁷ Thus, male slaves were valued only for production, while female slaves had the added value of reproduction. Slaves, who were usually war captives, were perpetual foreigners, or *odonko*; children of slaves, however, could be assimilated into the kinship structure of the Asante.¹⁵⁸

This Asante context for slavery has important implications for understanding Maroon society. First, the pervasiveness of slavery in the societies from which the Maroons came, and the degree to which it appeared to be a total institution, render the reality of maroonage more remarkable. Not only did Maroons escape from, and successfully rebel against, the racialized chattel slavery of eighteenth-century Jamaica, but they also escaped from the confines of the social structure from which they had come. In Asante, slaves were "ethnically diverse, far from home, stigmatized by a halting or inflected Twi, and often distinguished by cicatrization," conditions essentially identical to those faced by slaves in Jamaica. 159 Asante distinguished between odonko, or foreign war captive slaves, and slaves from other Akan polities. 160 By controlling the means by which a person could be jurally incorporated into Asante while extending the hope for such an incorporation, the Asante state effectively precluded the slave rebellion it so feared; "the Asante themselves claimed descent from one of seven matriclans, and technically only people who could trace their descent through the female line to one of these founding clans were full citizens."161 It was only through eventual integration into the matrilineage that Asante slaves could assimilate; escaping the condition of slavery without association with a matrilineage seemed conceptually impossible. Speaking in 1841, the Asantehene Kwaku Dua Panin said that "the small tribes in the interior fight with each other, take prisoners and sell them for slaves...I allow my people to buy and sell them as they please: they are of no use for any thing else but slaves; they are stupid, and little better than beasts." 162 Furthermore, the Asantehene could physically disperse slaves to prevent collective organization, and, at the slave owner's request, a slave could be reclassified as destined for ritual sacrifice. 163 In Jamaica, the British were such a minority that such dispersal and isolation was impossible; according to British Colonial Office statistics, in 1730, Whites comprised approximately 9.8% of Jamaica's

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¹⁵⁷ Robertson and Klein, 7.

¹⁵⁸ McCaskie, 97.

¹⁵⁹ McCaskie, 96-97.

¹⁶⁰ Klein, 151.

¹⁶¹ Klein, 151.

¹⁶² McCaskie, 96.

¹⁶³ McCaskie, 97-98.

population. 164 While many argue that maroonage is a natural by-product of the fundamental cruelty of slavery, not all of the enslaved became Maroons, and not all societies with slaves, or slave societies, produced corresponding Maroon communities. 165

The Igbo of Nigeria are another ethnic group from whom there is evidence that elements of the Maroons derived. Ibgoland differed from Asante in that the fundamental social unit was the patrilineage, and the village organized around a corporate group of patrilineages, rather than matrilineages, as with the Asante. 166 Social standing in Igboland was determined by the number of people the head of a patriclan could control, including slaves, wives and children; this, combined with the agrarian nature of the Igbo economy which rewarded with wealth those who controlled the most labor, provided the initial impetus for slavery in Igboland. Slavery was "never the basis of the social system" in Igboland, and only a small number of Igbo owned slaves; Igbo were more often taken as slaves by neighboring polities, to whom Igboland was considered an inland hinterland.¹⁶⁷

Generally, slaves of the Igbo performed the same economic tasks as free members of the household, such as fishing and farming, and, thus, were often in contact with free people. The only exception was amongst the northern Igbo communities, who were most prone to slave raids; in these communities, satellite villages of slaves were established as a defensive measure. In Igboland, there was a hierarchy of slave status. Bought slaves had less prestige than those born into slavery, and slaves that had been associated with families for longer had more status than recently acquired slaves did. Young girls, who commanded the highest prices in the slave markets, often married into the family to whom they were enslaved and thus secured liberty. Slaves of the Igbo were allowed one day out of the four day week to work for themselves; male slaves who parlayed their crops into cattle wealth could often advance in status, and their children, perhaps, could be adopted into a lineage by virtue of this acquired wealth. 168

Clearly, slavery as practiced in the Akan states, particularly amongst the Asante, slavery as practiced in Igboland and Kongo, and slavery as practiced by Europeans evolved separately, though after the fifteenth century, these distinct institutions influenced each other. As previously mentioned, women were in higher demand and commanded higher prices in African slave markets, a reality that contributed to the overwhelming sex imbalance of African slave populations in the

¹⁶⁸ Uchendu, 127-31.

¹⁶⁴ British CO 137/19.

¹⁶⁵ M. Campbell, 1.

¹⁶⁶ Victor C. Uchendu, "Slaves and Slavery in Igboland, Nigeria," in *Slavery in Africa*, ed. Igor Kopytoff and Suzanne Miers (Madison, WI: University of Wisconsin Press, 1977), 123. ¹⁶⁷ Uchendu, 124.

New World. Between 1676 and 1700, 56.5% of slaves that disembarked in Jamaica were male; between 1701 and 1725, when Asante had a greater abundance of war captives, 72% of slaves disembarking in Jamaica were male.¹⁶⁹ Western scholars have often labeled African slavery as "benign," both because it did not resemble plantation slavery in the Americas, and because colonial administrators in Africa were wary of contending with "the political problems of suppressing it." 170 Edward Long, in his 1774 History of Jamaica, claims that, in Africa, "the slaves of family are considered as no mean part of it; scarce any of them are sold, except for great crimes...they meet with no interruption, provided they acknowledge their subservience from time to time, and pay a tribute."171 Though it is easy to understand the stake colonial administrators and later writers would have in depicting African slavery as more benign, such claims seem ideologically out of place in the midst of Long's lengthy arguments justifying the European trade, which he characterizes as entirely different. Perhaps it is not possible to assess relative cruelty accurately, but it is possible to recognize that African slavery differed from American plantation slavery, both in derivation and in practice, and creating comparisons that do not ignore the glaringly different environmental, demographic, and social conditions in Africa and the New World are difficult. However, in the period between 1739, when the Maroons were formally recognized as a free and independent people by treaty with the British government, and 1834, when the British abolished slavery in all of its lands and colonies, the island of Jamaica was home to two very different socities, one a slave society and the other a society with slaves.

That the British-controlled slavery in Jamaica constituted a slave society is apparent from every examination of its structure and practice. Jamaica was "the largest producer of tropical goods in the British West Indies, accounting for 54 percent of tropical imports into Britain and approximately 13 percent of total imports into Britain," and "Jamaica's wealth was based on sugar and rum trade." Cultivation of sugar and production of rum was conducted entirely by slaves; "between 1655 and 1808, 915,204 Africans landed in Jamaica. Of these, just over three-quarters were retained in the island." Between 1676 and 1725, the years most relevant to the First Maroon

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¹⁶⁹ Eltis et al., Query and analysis of slaves disembarking in Jamaica between 1676-1700 and 1701-1725.

¹⁷⁰ Igor Kopytoff and Suzanne Miers, "African 'Slavery' as an Institution of Marginality," in *Slavery in Africa: Historical and Anthropological Perspectives*, eds. Igor Kopytoff and Suzanne Miers (Madison, WI: The University of Wisconsin Press, 1977), 6.

¹⁷¹ Long, 384-5.

¹⁷² Trevor Burnard and Kenneth Morgan, "The Dynamics of the Slave Market and Slave Purchasing in Jamaica, 1655-1788," *William and Mary Quarterly*, 3rd ser., 58 (2001): 205-7.

¹⁷³ Burnard, Mastery, Tyranny, and Desire, 15.

War, 181,114 slaves disembarked in Jamaica.¹⁷⁴ Manumission was incredibly rare; Maroons constituted the only notable population of free Blacks on the island.¹⁷⁵ The system of plantation slavery, as practiced by the British in Jamaica, relied upon continued importation of new slaves to fuel the sugar trade; without such slaves, the tiny minority of British on the island would have been economically insolvent. A slave-run sugar economy, however, allowed the British planters in Jamaica to form a highly moneyed elite. By 1774, "the average white in Jamaica was 36.6 times as wealthy as the average white in the thirteen colonies, 52.3 times as wealthy as the average white in England and Wales, and 57.6 times as wealthy as the average white in New England." Slavery and slave production were the sole basis for British power and money in eighteenth-century Jamaica.

In such a slave society, the British required an elaborate system of justification of slavery as natural. Some of this justification was grounded in Hamitic notions concerning the appropriate place in the order of the world and the relative inhumanity of Africans generally. Writing in 1774, Edward Long typified a Jamaican view towards enslaved Africans. Long argues that there is a surplus population of Africans who, if not sold into trans-Atlantic slavery, would be killed and eaten in Africa. Long attributes African reticence to be slaves to the Europeans to their belief "that they are bought in order to be fattened, roasted, and eaten," and that, upon learning otherwise, many wept for joy. Long also reports that Jamaican slaves with whom he spoke indicated that they preferred being enslaved in Jamaica than living free in Africa because they enjoyed a higher standard of material comforts. These justifications ring hollowly today, but, to the average eighteenth-century British citizen, these statements were convincing.

The situation of slavery as practiced by the Maroons in Jamaica was much more nuanced than the well-documented British plantation system, and its history is obfuscated by a lack of evidence. As previously discussed, present day Maroons, pressured by Pan-African and Rastafarian political and social considerations and influenced by feedback from written sources, customarily deny that the Maroons had slaves. Documentary evidence, however, contradicts the assertions of these modern day Maroons. Governor Paul Sligo, who ruled Jamaica during Emancipation in 1834, was charged with the laborious process of registering claims of Jamaican slaveholders, who were

¹⁷⁴ Eltis et al., Query and analysis of slaves disembarking in Jamaica between 1676-1700 and 1701-1725.

¹⁷⁵ Jerome S. Handler and John T. Pohlmann, "Slave Manumissions and Freedmen in Seventeenth-Century Barbados," *The William and Mary Quarterly*, 41 (1984): 390.

¹⁷⁶ Burnard, Mastery, Tyranny, and Desire, 15.

¹⁷⁷ Long, 386-7.

¹⁷⁸ Long, 397.

¹⁷⁹ Long, 400.

compensated for "loss of human property" by the British government. Writing to a friend on 3 November 1834, Sligo remarks:

The Maroons are holders of many slaves and have never registered them, but regular returns of their numbers, names, age and sex have been sent in as a matter of course each session to the Assembly; the Board has directed the Directors to make a report to return of these Individuals detailing the particular circumstances of the case, in order that the matter may be considered by the contract Board at home.¹⁸⁰

Remarkably, at least three Maroons were clearly documented as having received compensation from the government of Great Britain for the loss of human property after Emancipation. James Rowe of Accompong registered a claim for six slaves, and was paid £651. Catherine Dacree of Accompong was compensated £513 for two slaves, and Kate McLeary of Maroon Town was paid £163 for four slaves. Other claims appear to have originated from Maroons, but a more extensive examination of the registers is needed to confirm this. In these cases, the Maroon identity of the individuals listed is predicated upon their place of residence being listed as one of the Maroon villages; there is a small, but significant, possibility that those listed were merely non-Maroons living in Maroon villages.

The British, sensing a danger to the Great Chain of Being, passed a law in 1744 outlawing Maroon ownership of slaves.¹⁸⁴ The law, entitled the "Act for the Better Order and Government of the Maroon towns," mandated "forfeiture of any slave bought by the Maroons and a stiff fine for any merchants selling slaves to them, as well as anyone assisting them in such a transaction." ¹⁸⁵ There is no record of the law being effectively enforced, and it continued to be re-enacted regularly until Emancipation. It is difficult to conjure a reason why such a regular discussion would occur in the Assembly of Jamaica if the Maroons did not have slaves.

Indeed, when Colonel Foster, leader of Accompong, died in 1820, he manumitted all five or six of his slaves in his will. Later, a non-Maroon "woman of color" disputed the will, and the British superintendent of Accompong commented that the slaves may have been fraudulently owned.

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¹⁸⁰ Governor Paul Sligo to Rt. Honorable Rice, 3 November 1834, *Letters of Governor Sligo*, National Library of Jamaica, Kingston, Jamaica.

¹⁸¹ Claims for Compensation Filed With the Assistant Commissioners for Jamaica, National Library of Jamaica, Kingston, Jamaica, 31st sheet.

¹⁸² Claims for Compensation Filed With the Assistant Commissioners for Jamaica, 30th sheet.

¹⁸³ Claims for Compensation Filed With the Assistant Commissioners for Jamaica, 17th sheet.

¹⁸⁴ Kopytoff, The Maroons of Jamaica, 172.

¹⁸⁵ Kopytoff, *The Maroons of Jamaica*, 172.

Another will from a Moore Town Maroon deeds two of his slaves to free Blacks in Port Antonio. Other records exist of Maroons hiring their slaves to work elsewhere and of Maroons and British buying and selling slaves from each other. 186

The most detailed documentary source establishing the practice of slavery amongst the Jamaican Maroons was the census taken each year by the White superintendents of each Maroon town. In the same treaty by which the Maroons gained their legally recognized independence, the British established the right to have a superintendent residing in each Maroon community. The major responsibility of the superintendent was to submit a census each year. Despite the relatively low rigor of this job, the census are often incomplete and inconsistent, and, further, not regularly entered into the record of the Assembly of Jamaica. Some of the inconsistencies in the census data may be due to the incomplete records available in Jamaica; other difficulties may derive from the fact that it was illegal for Maroons to hold slaves, so several superintendents reported that Maroons concealed their slaves.¹⁸⁷ Data for Accompong, Moore Town, Charles Town, and Scott's Hall appear only in the Journals of the Assembly of Jamaica for the years 1773, 1798-9, 1801-3, and 1809-21. 188 Data on the Maroon populations are beset with such problems as aggregation of the women and girls in the Accompong census for 1817-1819 and the aggregation of men and women in Charles Town in 1815. Accounting for the slave populations of the Maroon communities was even more sporadic. Only in 1803, 1809, and 1817-1821 are slaves numbered in the Accompong and Charles Town census; Scott's Hall has slaves enumerated for 1798 in addition to 1803, 1809, and 1817-1821; Moore Town slaves are counted only in 1798, 1803, 1809, and 1819. In no record are slaves differentiated by gender or age. Table 1 and Chart 1 show the percentage of slaves in the Maroon communities for years when the data is available. 190

Table 1

Percentage of Resident Populations of Maroon Communities Enumerated as Slaves

	1798	1803	1809	1817	1818	1819	1820	1821
Accompong		4.03%	8.71%	3.88%	4.43%	4.43%	3.63%	3.88%
Charles Town	1	6.27%	6.96%	13.72%	15.00%	11.78%	12.06%	11.56%

¹⁸⁶ Kopytoff, *The Maroons of Jamaica*, 173.

¹⁸⁷ Kopytoff, The Maroons of Jamaica, 174.

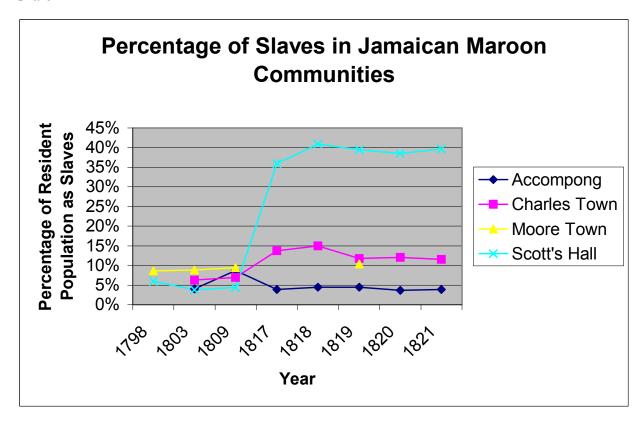
Journals of the Assembly of Jamaica, 1773-1821.

Journals of the Assembly of Jamaica, 1773-1821.

¹⁹⁰ Journals of the Assembly of Jamaica, 1773-1821.

Moore Town 8.59% 8.82% 9.46% 10.35% Scott's Hall 6.00% 3.77% 4.35% 35.96% 40.91% 39.45% 38.53% 39.64%

Chart 1



Though the data are inconsistently present, some trends emerge from these numbers. First, the smaller communities of Scott's Hall and Charles Town have a much larger percentage of slaves than do the larger communities of Accompong and Moore Town. Slave populations appear to have peaked for all communities save Accompong between 1817 and 1819. Though slave populations in Scott's Hall reached 40% of the total population, at no point did any community rival the percentage of slaves to free people in the larger polity of Jamaica, where roughly 90% of the population was enslaved.¹⁹¹

It is difficult to ascertain the role of these variable slave populations in the economies of the Maroon communities. In pre-emancipation Jamaica, Maroons "combined subsistence agriculture with hunting, especially for wild hogs. There was a pronounced sexual division of labour; men were involved in hunting and military-type expeditions whilst women assumed responsibility for

¹⁹¹ British CO 137/19.

agriculture." The gender ratios are relatively stable across Maroon communities, so it is difficult to explain the much higher prevalence of slavery in the smaller communities in terms of a lack of available free women, or the need for a greater pool of agricultural laborers. 193 It appears unlikely that the slaves of the Maroons were central to the economy. Furthermore, it is difficult to posit the existence of a slave-owning elite class amongst the Maroons. It is interesting to note that James Rowe, the Accompong Maroon compensated for six slaves, shares a surname with many Accompong colonels; in the absence of a greater amount of information, however, this is merely speculative conjecture about the possibility of a slave owning Rowe elite. While slaves were likely economically marginal to Maroon economies, they may have been central to Maroon ethnogenesis. While the core of Maroon communities was formed of Akan peoples, there was a wide range of other ethnicities within Maroon communities. Because of the potential conflicts arising from this diversity, Kojo mandated that Maroons speak English only; Kojo was likely well aware of the degree to which the Akan Asantehene depended on factionalism to quell any nascent slave revolts. The Akan people in Jamaica appear to have lost the matrilineal nature of their kinship system; while other Maroon groups such as the Saramaka of Suriname maintained matrilineality, the Jamaican Maroons appear neither matrilineal nor patrilineal.¹⁹⁴ However, Jamaican Maroons clearly asserted their distinctiveness from non-Maroons, and owning slaves may have been one means by which the Maroons maintained this separation.

Former Accompong Colonel Harris Cawley commented that Maroons do not celebrate Emancipation Day, as do the rest of Jamaicans, because Maroons were never emancipated, but rather freed themselves.¹⁹⁵ The influence of Emancipation on identities of former slaves of Maroons and their descendents should be investigated as, after Emancipation, approximately half of the slaves of Maroons stayed in Maroon communities. The gender ratio of those who stayed was approximately equal.¹⁹⁶ It is possible to conclude from this that economic opportunities throughout the rest of Jamaica were insufficient to encourage formerly enslaved people to leave the Maroon communities. Another possible interpretation of these data, however, is that enslaved people in

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¹⁹² David Barker and Balfour Spence, "Afro-Caribbean Agriculture: A Jamaican Maroon Community in Transition," *The Geographical Journal* 154 (1988): 199.

¹⁹³ Journals of the Assembly of Jamaica, 1773-1821

¹⁹⁴ Sally Price, "Sexism and the Construction of Reality: An Afro-American Example," *American Ethnologist* 10 (1983): 460.

¹⁹⁵ Harris Cawley, interview by author, Accompong, Jamaica, 7 August 2004.

¹⁹⁶ Votes of the Assembly of Jamaica, 1834-1837, quoted in Barbara Klamon Kopytoff, The Maroons of Jamaica: An Ethnohistorical Study of Incomplete Polities, 1655-1905 (Ph.D. diss., University of Pennsylvania, 1973), 178.

Maroon communities, even prior to Emancipation, were well-enough integrated into the Maroon society that there was little impetus to leave.

However those enslaved to the Maroons regarded their situation, the Maroons likely regarded slavery as an integral aspect of Maroon freedom. However, to the Maroons, the power to define inclusion and exclusion from the polity was more than the luxury of identity politics; during the period when the Maroons struggled against the British, it was imperative to control membership in the rebel group for reasons of survival. Untrustworthy people lethally betrayed Maroons, and through the Asante blood oath and other means, the Maroons endeavored to ensure the security of their community. Other permutations of the oath ritual were, and are still, performed any time a non-Maroon witnesses an important Maroon ritual, such as the Kromanti Play. 197 By delineating membership in the Maroon community in terms of allegiance to a sacred oath sworn to the gods, the Maroons have been able to create cohesive communities; the community cohesion is achieved by using ritual and mythic means to delineate clearly between community members and outsiders. Slavery, like the oath, appears to be one means by which Maroons ensured social cohesion. The power to define outgroups is a privilege of the free. While the Maroons lacked an ideology that reified slavery as ordained by nature or god, there is nothing in either the African or Jamaican experiences of the Maroons that would have made the institution of slavery appear to need justification.

Further examination of class and social structure of the Jamaican Maroons is clearly indicated. No record exists of modern Maroons tracing their heritage to former slaves of the Maroons, yet, given the Akan practice of assimilating slaves into the citizenry, and the fact that nearly half of the enslaved people did not leave Maroon communities after Emancipation, such people must exist. In conducting such an investigation, parallels with post-Emancipation Ghanaian society may emerge. However, the distinctiveness of Maroon culture and the unique imperative for virtually instantaneous construction of a viable and cohesive Maroon identity, render Maroon society, and the practice of slavery within it, discrete from both African antecedents and contemporaneous European constructions. Slavery on the Jamaican plantations clearly constituted slave society, and slavery in many African societies such as Asante also fit this mold; the segments of Igboland where slaves were not deployed in defensive villages are notable exceptions. It is difficult to draw conclusions based on these conjectural reconstructions of the role of slavery in the economy and society of the Jamaican Maroons. However, given the apparent role of slavery in the

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¹⁹⁷ Bilby, "Swearing by the Past," 674-7.

ethnogenesis of the Maroons, it appears that Jamaican Maroon society prior to emancipation was a society with slaves.

MAROONS IN AFRICA: A COMPARISON

The world the Jamaican Maroons and other New World Maroons created was, undoubtedly, a novel one, and maroonage is almost always discussed as a New World phenomenon. However, if there were slaves in the African societies from which those enslaved in the New World originated, and if the vast majority of those who violently rebelled or ran away were African, rather than creole, it is not unreasonable to believe that those who became the Maroons of Jamaica were acquainted with maroonage in Africa. Indeed, Genovese claims that the Atlantic trade in slaves included "some political rebels who had participated in revolts and maroon activity while still in Africa." Further, just as it is illuminating to compare slavery as practiced by different societies, it is also augments an understanding of the ethnogenesis of the Jamaican Maroons to examine the creation of maroon societies in Africa. Here, aspects of the Jamaican Maroon formation and society will be compared to the Tofinu, an ethnic group formed from refugees the slave raids and conquests of Dahomey in the late seventeenth and early eighteenth centuries, and to the communities that coalesced in the wake of the Mandingo Rebellion in modern-day Sierra Leone.

Genovese suggests a list of criteria that favored revolts and guerilla warfare against slavery in the New World; these criteria include the conditions that were present in regions with high incidences of revolt and maroonage in the New World, and whose absence in areas like the southern United States often characterized regions of relatively minimal revolt. Modified to inclusively apply to slavery both within and without the New World, these conditions are: 1) absenteeism and estrangement between masters and slaves; 2) famine and economic depravity; 3) large slaveholding units; 4) engagement of the slaveholding powers in frequent warfare against other polities; 5) large numerical majority of slaves over slaveholders; 6) greater presence of foreign-born slaves than creole slaves, or slaves born within the slaveholding society; 7) ability to form an autonomous leadership amongst the slaves; and 8) presence of geographical, social, and political conditions allowing for the formation of autonomous communities of runaways and rebels powerful enough to pose a threat to the slaveholders.¹⁹⁹ Clearly, these qualities were all endemic to the slave society of Jamaica. When analyzing the resistance to the slave trade in Africa, some of these characteristics, such as

¹⁹⁸ Genovese, 19.

¹⁹⁹ Genovese, 11-2.

absenteeism, size of slaveholdings, and the ability to form autonomous leadership, are not applicable. The final trait listed by Genovese, however, was crucial in both the New World and Africa, and those who successfully formed Maroon communities had to utilize every aspect of their environment as a weapon. Furthermore, social cohesion emerges from New World and African cases as crucial to the social, military, and political success of Maroon societies.

Perhaps the most well known example of a Maroon community in Africa is the lacustrine villages of the Tofinu in modern day Benin. The Tofinu, now a homogenous ethnic group, were originally refugees from various slaveholding societies in the area, and were most prominently of the Aja-Tado cultural group.²⁰⁰ Aja-speaking states included Sahe, Hogbonou, and Dahomey, which conquered Aja-speaking states Ouidah and Allada in the early seventeenth century.²⁰¹ The language of the Tofinu, Tofingbe, is closely related to Aja. However, people of many other ethnic derivations contributed to the Tofinu, including, notably, the Yoruba, whose deity, Shango, is among the most widely worshipped by the Tofinu.²⁰² Refugees from Nupe also joined the Tofinu in large numbers.²⁰³

When Dahomey conquered Allada in 1724 and Ouidah in 1727, many people fled in terror, for Dahomey virtually controlled the trans-Atlantic slave commerce. When Dahomey sacked the cities of its rivals, thousands of people were enslaved and often sold. When Jakin was sacked in 1732, over four thousand people were enslaved; Dahomey was even more brutal in the capture of Savi, the capital of Ouidah. 204 As the influence of Dahomey expanded, and as the slave trading efforts of the neighboring Porto Novo and Oyo polities intensified, more people fled to the region that would become Tofinuland, though refugees from the slave trade arrived in Tofinuland considerably earlier. 205 Similarly, the increase in maroonage in Jamaica in the late seventeenth and early eighteenth centuries accompanied an intensification of production pressures on the Jamaican sugar plantations.

Tofinuland is an ideal environment for refugees. The land is part of a lagoon system on the lower So River, about forty kilometers from the coast, and includes Lake Nokoué. The Tofinu villages are located near lakes, are regularly flooded marshlands, or, most famously, are villages built

²⁰⁰ Elisée Soumonni, "Lacustrine Villages in South Benin as Refuges from the Slave Trade," in *Fighting the Slave* Trade: West African Strategies, ed. Sylviane A. Diouf (Athens, OH: Ohio University Press, 2003), 7.

²⁰¹ July, 122.

²⁰² Soumonni, 7-10.

²⁰³ A. Félix Iroko, *Mosaiques d'Histoire Beninoise*, vol. 1 (Tulle, France: Éditions Corrèze Buissonnière Peuple et Culture Corrèze, 1998), 75-6.

²⁰⁴ Soumonni, 7.

²⁰⁵ Iroko, 75.

on stilts, entirely within lakes.²⁰⁶ Locating villages in such an environment, an extreme measure, protected the Tofinu from mounted attack; the soldiers of Dahomey were poor swimmers and not adept at navigation by canoe, as typified in the foundation story of the village Ganvié, where the Tofinu overturned a war canoe full of slave raiders.²⁰⁷ This ingenious use of the environment as a defense system by the Tofinu is reminiscent of the Jamaican Maroon use of the Cockpits and the Blue Mountains. For example, the Maroons utilized the unique topography of the Cockpits to trap pursuing soldiers in hidden sinkholes, from which they could not escape.²⁰⁸

As was the case for the Jamaican Maroons, the diversity of the Tofinu necessitated conscious social engineering to create an effective defense system. The Tofinu appeared to have engaged in deliberate and conscious mixing of the various elements of the society, including adopting the deities from most of constituent belief systems. There is some debate concerning the relative status of the various ethnicities who contributed to the Tofinu. Iroko argues that the Yoruba constituents were captured people whom the Aja-Tofinu initially intended to sell.²⁰⁹ Soummoni's oral sources in Ganvié indicated that while some of the refugees who came to Tofinuland had been previously enslaved, all who entered Tofinuland became free, and "nobody was permitted to come in and take them away for the purpose of selling or enslaving them." Though the evidence concerning the presence or absence of slaves to the Tofinu is inconclusive, it is clear that the "fear of permanent external aggression" and the rigors of the environment, in the case of the Tofinu as much as for the Jamaican Maroons, led to the creation of a new and cohesive ethnic identity within a brief period of time.²¹¹

Thus, the formation of the Tofinu appears to coincide with many of the traits discussed by Genovese. The famine factor may be less important for those fleeing enslavement, though two serious droughts, including one of seven years' duration, struck the region in the seventeenth century, and a massive drought afflicted the entire Sahel region from 1740 until 1750.²¹² Dahomey's brutal conquest of rival states likely caused economic deprivation for those conquered, and it also

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²⁰⁶ Georges Bourgoignie, "Ethno-Ecologie d'une Collectivite Regionale: Les cities Lacustres du Dahomey" *Canadian Journal of African Studies* 6 (1972): 403-31.

²⁰⁷ Soummoni, 8-9.

²⁰⁸ Mark Wright, personal interview with the author, Accompong, Jamaica, 7 August 2004.

²⁰⁹ Iroko, 75-6.

²¹⁰ Soummoni, 9-10.

²¹¹ Soummoni, 10.

²¹² Global Literacy Project, "Nigeria," 2002. www.glpinc.org/Classroom%20Activities/Nigeria%20Articles/Nigeria%27s%20Early%20History.htm, 17 April 2005.

greatly increased the risk of being enslaved. Though the monarch of Dahomey had many personal slaves, it was more probably the large number of newly enslaved captives that made flight and open confrontation of Dahomey feasible. Dahomey was engaged in frequent conflict with neighboring states, and this conflict allowed the Tofinu to exist on the borderlands between Dahomey, Allada, Oyo, Nupe, and the Yoruba states. The resources required by these conflicts, and by persistent slave raiding, prevented Dahomey from being able to devote all of its resources to eradicating the Tofinu. Finally, the inimitable use of the lacustrine environment as a defensive strategy, in the absence of military equity with Dahomey, allowed the Tofinu to preserve their freedom, just as the Cockpits and Blue Mountains defended the Jamaican Maroons.

Such favorable environmental conditions were no less important to those who participated in the Mandingo Rebellion in 1785; in this instance, where the rebels were an enslaved resident population, many more of Genovese's criterion and similarities with the situation of the Jamaican Maroons existed. This rebellion was directed against the slaveholding elite of the state of Moriah, founded in the 1720s, and dominated by warriors, traders, and Islamic missionaries.²¹³ In the expansion of the state between 1720 and 1760, Moriah encroached upon the territories of neighboring Bullom, Baga, and Temne, and captured many people from these states for sale in the trans-Atlantic trade and for use as domestic slaves.²¹⁴ By the 1770s, enslaved Bullom, Baga, and Temne comprised 70 to 80 percent of Moriah's population and produced the vast majority of rice, Moriah's major commodity.²¹⁵ The economic centrality of the enslaved in Moriah and their numeric majority are analogous to the situation of the enslaved in Jamaica; furthermore, these enslaved people resided in slave villages, whose sole purpose was to create rice for the slaveholders, not unlike the sugar plantations is Jamaica.²¹⁶

When, in 1785, Moriah went to war with neighboring Soso, "[t]he slaves took an opportunity, when the principal part of their fighting men were out on an expedition, to attack their masters, several of whom they put to death...they then set fire to the rice which was ready to be cut...[so] that their late masters were under necessity of suing for peace." Six to eight hundred people living in slave villages participated in this uprising, and then fled to Yangiakuri, Kani, and Funkoo, is Soso

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²¹⁴ Rashid, 140

²¹³ Ismail Rashid, "'A Devotion to the Idea of Liberty at Any Price': Rebellion and Antislavery in the Upper Guinea Coast in the Eighteenth and Nineteenth Centuries," in *Fighting the Slave Trade: West African Strategies*, ed. Sylviane A. Diouf (Athens, OH: Ohio University Press, 2003), 139.

²¹⁵ David E. Skinner, *Thomas George Lawson: African Historian and Administrator in Sierra Leone* (Stanford, CA: Hoover Institution Press, 1980), 52-8.

²¹⁶ Rashid, 140.

²¹⁷ John Matthews, A Voyage to the River Sierra- Leone (London: Cass, 1788), 154-5.

country, and in the foothills of mountains. In Yangiakuri, the refugees built twelve-foot mud walls and security towers.²¹⁸ This choice of refuge recalls the Jamaican Maroon defensive systems in the Cockpits and in the Blue Mountains, where stone structures built by the British when they briefly occupied the site in the 1730s were later used by the Maroons defending the site.²¹⁹ As did the Jamaican Maroons, the Mandingo rebels also encouraged other enslaved peoples to join them.²²⁰

The Mandingo rebels were initially tolerated or supported by Soso, but when Soso and Moriah made peace in 1795, Moriah and Soso allied against the rebels, who, increasingly, included refugees from the enslaved people of Soso. The smaller settlements were quickly conquered, and the inhabitants were killed or sold into slavery. Yangiakuri proved more difficult to defeat. After besieging the town and setting fire to the houses with flaming arrows, the combined armies killed about four hundred of the village's nine hundred residents. The rebels inflicted high casualties on the Moriah-Soso army, reducing it by more than half, according to one estimate. When one of the rebel leaders was betrayed and killed as he tried to acquire more military supplies, Yangiakuri was defeated, and "the majority of the residents... were killed or sold into slavery...[a] small number...escaped and were able to found a settlement in Bena, a Soso polity on the upper reaches of the Great Scarcies River."221 The ardent defense of the communities certainly is similar to that of the Jamaican Maroons. No information is available on the degree to which the diverse ethnicities enslaved in Moriah coalesced into a unified identity during this period of rebellion; however, the fact that the Mandingo rebels encouraged others to join them, and that all fought to defend Yangiakuri, suggests a relatively high degree of unity amongst the disparate participants in the Mandingo Rebellion.

The situation of the Mandingo Rebellion appears to meet virtually all of Genovese's criteria for a rebellion-prone slave society. The enslaved people who rebelled lived in slave villages from which the masters were almost always absent. There does not appear to have been a famine during the late eighteenth century in Sierra Leone, nor any particular economic depravation. The rice plantations were populated by large numbers of enslaved people, as evinced by the quantity of people who participated in the Rebellion. The Mandingo Rebellion could not have initially succeeded without the brilliant planning on the part of its leaders, who waited until most of Moriah's military was engaged with Soso; while Moriah remained at war, the rebels remained free, and they

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²¹⁸ Rashid, 140-1.

²¹⁹ Agorsah, "Archaeology of Maroon Settlements in Jamaica," 182.

²²⁰ Rashid, 141.

²²¹ Rashid, 141-2.

were not defeated until Moriah and Soso allied. The enslaved greatly outnumbered the free in Moriah, and newly captured people were sent to the rice plantations.²²² The rebels clearly developed their own leadership, which not only planned the enormously successful initial rebellion, but also organized the rebel polities effectively. That Yangiakuri was only defeated when its leader was captured is an eloquent testimony to the efficacy of its leadership. Lastly, the Mandingo rebels used mountains and rivers to their great advantage, much as they used the contention between Moriah and Soso.

Though the Mandingo Rebellion occurred significantly after the Jamaican Maroons successfully gained their autonomy, it is but one vivid example of a general trend of maroonage and flight which characterized African responses to slavery and the slave trade throughout Africa. It is even possible that some Maroons knew of the Tofinu, or of other rebel and refugee groups. The conditions that produced these communities are similar to those that gave rise to the Jamaican Maroons, and the strategies that were successful in these situations are remarkably alike. Genovese's model is but one way of describing the commonalities between these situations, but it helps to demonstrate that the responses of enslaved people to slavery, both in Africa and in the New World, whether arising completely independently or through some mechanism of transmission, share a great many features. It thus seems that comparative maroonage is an important field of study that should be investigated in earnest.

CONCLUSION

The Jamaican Maroons are thus both unique and part of a continuity of culture and maroonage. In the specific ways in which the Maroons fought against the British, secured their autonomy, and rapidly created a new and cohesive ethnicity, their original innovations are clear. However, the means by which the disparate rebels and refugees became Maroons are clearly adapted from African practices. The new mythology of the Maroons borrowed from recognizable mythic structures of Africa, and the kinship metaphor which extended from this mythology is distinctly African in nature. Even maroonage, so often regarded as unique to the plantation slavery societies in the New World, has African antecedents and analogs. The Maroons created their society in response to the particular needs of their social, physical, political, and spiritual environment, but they modified patterns of behavior and belief from Africa to do this. Thus, the seeming contradiction

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²²² Rashid, 140.

between novelty and continuity can be resolved by understanding Maroons adaptations as a process of synthesis and adjustment.

Any study of the Jamaican Maroons must confront a profusion of apparent contradictions. Most often emphasized is the seeming paradox of rebel slave communities that turned against rebel and refugee slaves. As has been shown, the Maroons conceived of themselves as an independent ethnicity, and, no matter how much enslaved people, Paul Bogle, or twentieth-century and twenty-first-century people may have wished, or continue to desire, for it to be otherwise, the Maroons were not freedom fighters. The shame that accompanies an examination of slavery, both for the descendents of the enslaved and for the descendents of the slaveholders, cannot be dissipated or diffused by placing the burden for overthrowing a system of racialized slavery upon the Maroons. This was not their goal, nor was it a struggle which they recognized. The weight of shame cannot be projected onto eighteenth-century Maroons; rather, it must be confronted in the systems of inequity which continue to be perpetuated today.

For inequities do persist, even after independence. Maroons continue to lack basic services in their communities, such as running water and functional roads. Economic opportunities for young Maroons who wish to stay within their communities are limited, and the crime, chronically high unemployment and poor housing conditions those who leave must face is not encouraging. Despite the prevalence of Pan-Africanist ideology in modern Jamaica, there is a noted lack of *umoja*, *ujima*, and *ujama* in the society at large. These principals, however, were fundamental to the creation of the Maroon polities, and persist to day in such ways as collective Maroon ownership of Maroon lands. Eighteenth-century Maroons were not revolutionaries, but they did understand the importance of collective action, collective belief, and unity.

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Performance and Application of an Inexpensive Method for Measurement of Nitrogen Dioxide

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Abstract

To make air quality monitoring accessible to a broad range of people (i.e. consumers, educational groups, and environmental activist) a low-cost method for sampling nitrogen dioxide (NO2) was modeled after the Palmes and Gunnison diffusion samplers. This article describes the results of using cost-effective passive diffusion tubes for measuring NO2 in outdoor environments. Samplers are compared against a collocated chemiluminescence (active) monitor in a gas exposure chamber for concentration of NO2 between 10 and 200 ppb/v (parts per billion per volume). In these calibration experiments diffusion samplers had strong correlation to the active monitor, R2 = 0.94 for a one week sample interval, and a R2 = 0.91 for a two week sample interval. A four week study was conducted with a collocated active monitor and a total of 42 samplers. The samplers were divided into 6 groups and exposed in one week and two week intervals under environmental conditions: temperature 18 - 31°C, relative humidity 27 - 57 %, wind speed 0.4 - 3 m/s, and NO2 concentration 2 - 22 ppb/v. The precision, calculated as the relative standard deviation, for the one week sample interval was found to be 8.2%, and for the two week sample interval 20.2%. Three cleaning methods of exposed samplers are compared in order to identify bias in reusing components. Using the best cleaning method the mean NO2 absorbance of a dry sampler is 1.3 \pm 0.4 ppb/v as opposed to a zero absorbance for unused samplers.

1. Introduction

With more people becoming aware of the negative impact that transportation and industry pollutants are having on their health1, the need for low-cost air sampling devices has become predominant. Nitrogen oxides (NOx) are key urban pollutants linked to respiratory illnesses 2. NOx are formed when fuel is burned at high temperatures, as in combustion exhaust. Mostly nitrogen oxide (NO) is produced in the combustion process but it is readily oxidized in the atmosphere to produce NO2 (NO + O2 => NO2). Because sources of NOx are primarily anthropogenic, a community's exposure is highly influenced by its proximity to roadways and industry plants. Also, because NO2 is a bi-product of combustion, it acts as a tracer for other noxious pollutants such as hydrocarbons, carbon monoxide, and surface level ozone 3.

Traditionally, the concentration of NO2 is actively sampled using instruments such as the chemiluminescence analyzer 2 which can monitor one point in space continuously. Developing networks of these instruments, which would show the distribution of NO2, is hampered by their high cost 4. Passive diffusion samplers (sampler) can be utilized as a relatively inexpensive method (~ \$1.50 per sampler) for measuring ambient NO2. Because of their low cost it is relatively

affordable to put samplers at multiple sites within a study region. Although the measurement represents a time average (in the scale of weeks) we can continue a study for many months at very low cost. A great advantage of the passive diffusion tube is its ease of use; because of this it is feasible to get multiple groups (high school students, churches, community action groups) involved in air monitoring campaigns for several months at a time. For these reasons there is a great deal of incentive to incorporate diffusion tubes into an air monitoring protocol.

The use of passive diffusion tubes for measuring NO2 was first introduced by Palmes and Gunnison 5. Initially they were used for workplace monitoring, but have been adapted for air quality management ⁶-9. Diffusion is a property of gases by which a gas will flow from a place of higher concentration to a place of lower concentration. If a suitable absorbing agent is used, the concentration of a gas can be kept theoretically zero at a point. Thus gas will always flow to that point. With this property in mind, we can constrict the flow of a sample to a tube, having one end open to the gas sample and the other end closed off with the suitable absorbing agent present at the closed end. The absorbing agent used for NO2 is triethanolamine (TEA), when NO2 in the atmosphere diffuses into the sampler it reacts with the TEA and is converted to nitrite. The nitrite remains in the TEA and more NO2 diffuses into the sampler. The rate at which NO2 diffuses into the tube is found experimentally to be 0.154 cm2 s-1. When the sampling interval is concluded, the mass of nitrite (Q) absorbed in the TEA is determined using UV-spectroscopy; Q is proportional to the concentration of NO2 in the sampled and the length of exposure.

There still remain many questions as to the confidence that can be placed in this method 5,10-14. In a study by Plaisance *et al.* (2002) several biases resulting from meteorological parameters are identified, specifically overestimation caused by wind turbulence. In their work, a protective shelter (originally proposed by Hangartner *et al.* 1987) is suggested as well as a corrective formula arrived at by experiments at various wind speeds. Other works point out potential overestimation from "within the tube" chemistry 13.

It was found in an inter-laboratory comparison that differences in sampler preparation are a main source of inaccuracy14. Therefore, the sampler preparation and analysis procedure are outlined. In our field studies a question arose concerning the reuse of samplers, thus three cleaning methods of sampler components are compared.

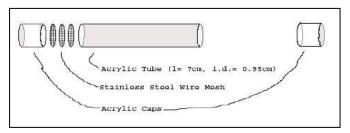
2. The sampler

2.1 Sampler design

Samplers (figure 1) are made from industrial grade acrylic tubing with dimensions: length = 7 cm and internal diameter = 0.95 cm (Multi-Craft Plastics, Inc. (503) 288-5131). A triethanolamine (TEA, 98%) absorbing solution of 20% TEA in aq. is prepared by combining 20 ml of TEA, 80 ml of distilled water, and 160 μ L wetting solution (1 gram of Brij-35 dissolved in 9 ml distilled water). Two caps (also of Industrial Acrylic) are secured to the ends of the tube. One cap is pressed down

tightly onto the tube, this cap houses two TEA-coated stainless steel wire mesh screens (40 x 40 mesh); it is here that NO2 is converted to nitrite. A second cap is loosely placed on the open end of the tube before and after exposure.

figure 1: Sampler Construction



The samplers are stored in a refrigerator (at 9° C) until deployment. When ready to use, the sampler is secured at least 4 cm from any surface by steel wire to a convenient object (e.g. telephone pole). After siting the sampler the cap from the end without screens is removed and washed. The sampler is hung so

that the open mouth of the tube is facing downward. After the sampling interval is concluded the previously removed end cap is loosely replaced.

2.2 Theory of Diffusion

The theoretical background for the passive diffusion sampler was worked out by Palmes *et al.* 1976; specifically an estimate of the diffusion coefficient for NO2 in air is given. The equation describing the rate of diffusion is:

$$[NO_2] = \frac{Q \cdot z}{D_{NO_2} \cdot A \cdot t}$$
, where

Q= mass of nitrite (μg),

z= diffusion length (cm),

 D_{NO_2} = diffusion coefficient for NO2 in air (cm2 · s-1),

A= internal cross-sectional area of tube (cm2) and

t= collection time (s).

The best estimate for the diffusion coefficient was found 5 to be 0.154 cm2 \cdot s⁻1, supplying the diffusion coefficient, length and i.d. of the sampler the total equation is, D_{NO_2}

$$[NO_2]ppb = \frac{Q(M)}{t} \cdot 2.87 \times 10^{12}$$

The free variables are Q mass of nitrite and t the time of exposure in seconds.

2.3 Determining concentration of nitrite by UV-spectroscopy

The mass of nitrite is determined by UV- spectroscopy using a Bausch and Lomb UV- spec 20. The samplers off the field are stored in a refrigerator until analysis. The samplers are placed in a rack with the screened end down. The loose end caps are removed. Using a volumetric pipette 1.6 ml of analytic solution and 1.4 ml of distilled water are measured directly into the diffusion tube. The analytic solution is made up off seven parts sulfanilamide solution to one part NEDA solution (see below for preparation of solutions). When this solution reacts with the nitrite "trapped" in the TEA it begins to color proportionally to the amount of nitrite present. A spectrometer (measuring at 540 nm) is used to measure the absorbance of the sample.

To determine the coefficient of proportionality between the dye absorption and quantity of nitrite a calibration curve is created. Five solutions with varying concentration of nitrite are prepared, called standard solution 1-5. In five marked test tubes, one test tube for each concentration, 1.4 ml of the corresponding standard solution is combined with 1.6 ml of analysis solution. The concentration is

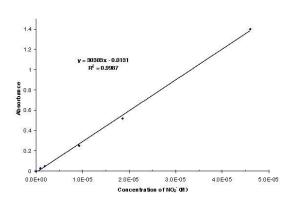


figure 2: Sample Calibration Curve

plotted against the UV absorbance (figure 2). This equation is unique to each analysis solution. For a calibration curve to be accepted it must have a R2 > 0.999 and an intercept < |0.1|. The sulfanilamide solution is prepared by weighing 5 grams of sulfanilamide dissolved in 15 ml of phosphoric acid. The solution is diluted to 250 ml with distilled water. The NEDA solution is prepared by diluting 0.35 grams of NEDA to 250 ml with distilled water.

3. Experimental

3.1 Determining offset absorbance

3.1.1 Unexposed samplers used to determine leak absorbance

There are a few instances when a sampler is exposed to ambient air which does not represent the *in situ* NO2 concentration; as is the case when assembling and preparing the sampler for absorbance measurements. We would like to make a track record of these renegade measurements in order to subtract them from the final result. This is managed by including an extra sampler that remains unexposed (blank sampler). The blank sampler is prepared in the same manner as the others, but the end cap is not removed until all the samplers are brought in for analysis. One blank sampler was included in each of the six groups put in the field. The mean concentration for these was 2 ± 2 ppb/v [NO2] (parts per billion per volume).

3.1.2 Comparison of Cleaning Methods

Part of maintaining low cost is reusing samplers. Thus, an effective cleaning method is needed to remove the residual TEA solution, which has absorbed nitrite in it, from the sampler components (i.e. caps, tube, and wire mesh screens).

Twenty-eight samplers used in a preliminary field study were employed in this experiment. The acrylic tubes and end caps were washed with an aqueous solution of 3% triton X-100 (cleaning solvent) in an ultrasonic bath for one hour. The components were then rinsed with distilled water and set to air dry.

The wire mesh screens (where most of the TEA is deposited) were divided into three groups and each group was washed in a different manner. In the first method screens were soaked in distilled water and dish soap (n = 9). For the second method, screens were soaked in phosphoric acid (n = 9). In both methods the screens were placed in a beaker and frequently agitated for 20 minutes. In the third method the screens were bathed in an ultra sonic bath with a 3% triton X-100 in aq. solution for half an hour (n = 10). After each method the screens were thoroughly rinsed in distilled water and let to air dry.

The samplers were then exposed for a period of three days at an average concentration of 10 ppb/v [NO2] in the gas exposure chamber. TEA absorbing solution was not added, so that NO2 absorbance was do to residual TEA from previous use.

3.1.3 Results of Cleaning and Unexposed samplers

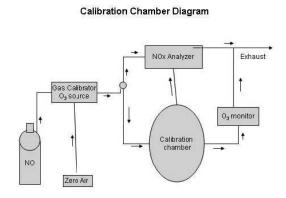
The screens cleaned with dish soap had the lowest mean absorbance 1.3 ± 0.4 ppb/v [NO2] (standard error for a 95% confidence interval). The mean absorbance for the phosphoric acid methods were 2 ± 1 ppb/v [NO2], and for Triton x-100 2 ± 0.7 ppb/v [NO2]. A comparison of the sample means at a 90% confidence level resulted in a difference in measurements between the soap/water method versus the phosphoric and triton X-100 methods. But, a difference could not be established between the phosphoric and triton X-100 methods at the 90 % confidence level. A comparison of mean measurements of the cleaned samplers and the unexposed samplers also did not show any significant difference.

Thus, we can conclude that after the tubes have been used they may be washed with soap and water. Also, an unexposed sampler should be included in order to subtract the absorbance of this sampler from the actual *in situ* measurements.

3.2 Laboratory Calibration

3.2.1 The setup

To determine the accuracy and precision of samplers an exposure chamber was constructed in the lab (figure 3). The chamber is a cylindrical Teflon bag with a 9 L volume. The desired amount of NO2 is generated by a multi-gas calibrator (Dasibi, 5008) and pumped into the bag camber at 3 liters



25° C. figure 3: Calibration Chamber Diagram

per minute through Teflon tubing with i.d.= 2mm. Ozone is generated by the multi-gas calibrator and mixed with NO in pure nitrogen mixture. NOx and Ozone concentrations were sampled continually using a chemiluminescence monitor (Thermo Environmental Inc., model 42c) and ozone monitor (Dasibi, 1003-AH), respectively. The contents were well mixed by a fan which hangs from the top of the chamber. Several measurements were made to insure that the wind speed within the bag never exceeded 1 m/s. The temperature was kept within a range of 18-

3.2.2 Results of laboratory calibration experiments

Both the one-week and two-week intervals resulted in measurements well correlated to the chemiluminescence monitor. The one-week interval had a R2 = 0.91 and the two-week, R2 = 0.94. The offset for both sets is within the error range of the blank samplers (i.e. 2 ± 2). The slope for the one-week samplers is 0.9 ± 0.1 . Whereas the slope for the two-week sample interval is 1.9, it is not clear what the cause for this underestimation by half in the two-week data set. But, the laboratory measurements and *in situ* measurements seem to be consistent.

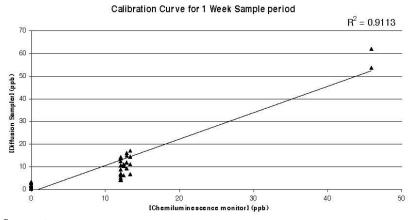


figure 4.a

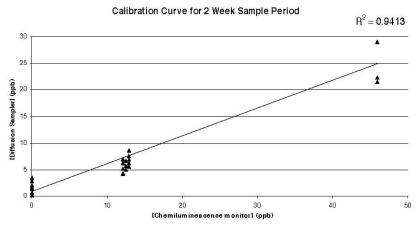


figure 4.b

3.3 Collocated Active Sampling/ Diffusion Samplers

3.3.1 Data Collection

A four-week outdoor study was made on the roof of the science building at P.S.U. The site was chosen because air quality and meteorological measurements are made continuously (ten-minute time scale) and are readily available through the Horizons' Network (www. nextgen.pdx.edu). The study was conducted in a four-week period under a range of environmental conditions: temperature 18 - 31°C, relative humidity 27 - 57 %, wind speed 0.4 - 3 m/s, and NO2 2 – 22 ppb/v. The NO2 measurements were made from a thermo environmental chemiluminescence monitor. The diffusive samplers were divided into two groups and assigned randomly. Group A consisted of four sets of samplers exposed for one-week intervals in succession for the four-week period. Group B consisted of two sets of samplers exposed for two-week intervals. Each set was comprised of six samplers and one blank. The tubes were hung in close proximity to the intake of the active monitor.

3.3.2 Results

The accuracy of mean sampler (x) measurements is small, xmonitor – xsampler < 1.9 [NO2] ppb/v. And in three cases the mean of the sampler measurement is exactly equal to the active monitor. The precision of the each set is measured as the standard error at the 95 % confidence interval using the pooled sample standard deviations. The one-week sample interval has greater variance, \pm 2.4 [NO2] ppb/v, than the two-week interval, \pm 1 [NO2] ppb/v. While it cannot be concluded from these studies, other work has suggested a longer sample interval (i.e. two weeks) results in better precision. Our study seems to corroborate with this. The precision of the one-week sample interval measured as the relative standard deviation is 20.2%, and the two-week sample interval is 8.2%. Below are the results of the four-week outdoor study; the one-week sample interval in figure 5 and the two-week sample interval in figure 5.

In Situ Comparison of Collocated Chemiluminescence Monitor and Diffusion samplers for one week sample interval

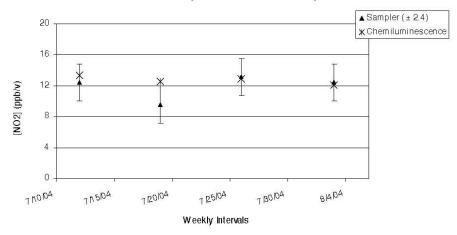


figure 5

In Situ Comparison of Collocated Chemiluminescence Monitor and Diffusion samplers for two week sample interval

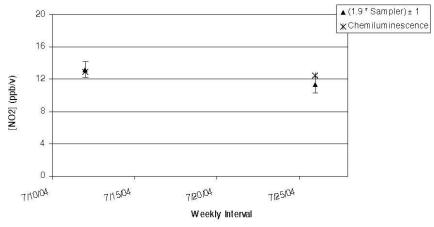


figure 6

4. Discussion

The results from three cleaning methods suggest that the diffusion sampler components should be washed in water and dish soap before reuse. Also, an extra diffusion sampler that is to remain unexposed should be included in all experiments utilizing the samplers. The concentration of NO2 determined by analyzing the extra sampler is the baseline measurement that should be subtracted from the rest of the data.

A four-week outdoor study suggests that diffusion tubes are accurate in their measurements of [NO2] compared to a chemiluminescence monitor. For better precision, a two-week sampling interval is preferred over a one-week sample interval. But this may not always be appropriate, in the case where a shorter time interval is needed, the precision of one week was still found to be good at 20.2%.

Laboratory calibrations of the diffusion samplers are still carried out at Portland State University. Also, multiple outdoor field studies in the Portland, Oregon metro area are currently in effect. It is the hope that this cheap method will be accepted as an accurate measure of nitrogen dioxide.

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