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“Situating Knowledge through the Mothers Committee of Bayview Hunters Point”

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Due to higher than national average breast cancer rates and deaths on Long Island the U.S. Congress in 1993 ordered a study of breast cancer on the island. The Long Island Breast Cancer Study Project (LIBCSP), federally funded under Public Law 103-43, conducted by the National Cancer Institute in collaboration with the National Institute of Environmental Health Science, is aimed at investigating environmental causes of breast cancer. The National Cancer Institute states “[t]he LIBCSP consists of more than 10 studies that include human population (epidemiologic) studies, the establishment of a family breast and ovarian cancer registry, and laboratory research on mechanisms of action and susceptibility in development of breast cancer.”ⁱ Women on Long Island have long suspected that their breast cancer was linked to various environmental causes, such as pesticide spraying for mosquitoes, municipal waste, and industrial air pollution and water pollution.

In Bayview Hunters Point, California there are also women who suspect that their breast cancer and other illness in their community are linked to industrial air pollution, water pollution, municipal waste, and radiation from a local Naval shipyard.ⁱⁱ A study of these women, conducted from 1987-1993 and published in 1995, also reveals higher than national average rates of breast cancer and deaths in this community.ⁱⁱⁱ In fact, recent studies from 2007 show them to have one of the highest rates of breast cancer in the country.^{iv} Yet unlike the women of Long Island, the women of Bayview Hunters Point were not written into a congressionally backed and federally funded research effort that

consisted of any studies, let alone ten studies. There is no National Cancer Institute “Bayview Hunters Point Breast Cancer Study Project.” How are we to account for the disparities in research priorities and funding? There are two significant demographic differences that differently situate these communities: race and class, which, as Nancy Krieger and Mary Bassett argue in “The Health of Black Folk: Disease, Class, and Ideology in Science” “correlate with health because race is a powerful determinant of the location and life-destinies of individuals within the class structure of U.S. society.”^v

The breast cancer rates from Bayview Hunters Point reflect illness and deaths of African American women who live below the poverty line, where as the women of Long Island are, by in large, white and affluent. The failure of the government to fund a study akin to the Long Island study is even more worrisome considering that African American women are more likely to die from breast cancer than white women. The National Cancer Institute reports 33.5 deaths per 100,000 for Black women compared to 24.4 deaths per 100,000 for white women.^{vi} In the case of Long Island the death rate for the two counties of concern, Nassau and Suffolk, was 28.0 and 29.0 per 100,000^{vii}, which is higher than the national average, but not higher than the mortality rate for Black women. My point here is not to denigrate the efforts of Long Island activists, but to question why these women were able to get support for a federally funded study while the illness and deaths of the women of Bayview Hunters Point go unnoticed? Race and class not only the situated the Long Island women such that they had resources to make themselves heard, but also such that their lives and their deaths were more noticeable. Because of the multiple levels of oppression, the women of Bayview Hunters Point had to develop alternative resources, methods, and coalitions through which to be heard. This paper is as

much the story about how they go about being heard and affecting change as it is an argument about the efficacy of situated knowledges.

In this paper I use the experiences and activism of the women of Bayview Hunters Point (BVHP), focusing specifically on a community citizens-science group called the Mothers Committee, to develop arguments for situated knowledge and to point to the trajectory that I see these arguments taking. I argue that situation is a vital epistemic location that is salient to its members, it is a place to know, and it is a place from which to initiate transformative practices, as well as a place that is transformed. In addition to the Bayview Hunters Point and the Mothers Committee being apt examples of situated knowledge, they also provide a critical example of environmental, health, and racial injustice and a powerful example of how communities resist injustice. Thus, the equally important goal of this paper is to highlight just how this community is subjected to, experiences, and resists injustice.

Locating the Mothers Committee

The Bayview Hunters Point Mothers Environmental Health and Justice Committee, aka, the Mothers Committee, is a “grassroots community group,” a citizens-science group, that was formed by the Huntersview Tenants Association and the Greenaction for Health and Environmental Justice in San Francisco.^{viii} The purpose of the group was to “mobilize, train, and empower community mothers in the fight for environmental health and justice in Bayview Hunters Point.”^{ix} Greenaction^x helped to train the members of the Mothers Committee in computer, research, media and public speaking skills; as well as in environmental health, community organizing, and how to

work with government organizations.^{xi} Over the course of a year, 2002-2003, “they collected information about their community, attended and spoke at government information meetings and hearings, and visited government agencies and met with government officials to advocate for their community.”^{xii} From these activities in 2004 they generated the report “Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco.” The report compiles and assesses information about the Bayview Hunters Point environment, the businesses that impact its environment, and the health of members of the community. From this assessment the Committee also presents a series of recommendations and steps for future work.

The Bayview Hunters Point (BVHP) neighborhood in San Francisco is considered by the EPA to be one of the most chemically contaminated communities in the U.S.^{xiii} and “over half of the land in San Francisco that is zoned for industrial use is in Bayview Hunters Point.”^{xiv} The most impacted part of this neighborhood is the community of 12,000 residents that live on the east side of Third Street, where the homes of the Mothers Committee members are located.^{xv} 70% of this community is African American, 15% Asian (consisting largely of Chinese and Pacific Islanders), and the final 15% either Caucasian or Hispanic. 40% or more of the people live at subsistence level incomes.^{xvi} This community was also home to the PG&E power plant for 77 years until the Mothers Committee helped force its closure in 2006.^{xvii} Bayview Hunters Point is also home to:

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According to Mitchell H. Katz, M.D. in “Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter’s Point

Residents” Bayview Hunters Point is also home to a disproportionately high number of sick people.^{xviii} There is a high rate of asthma among children, a high rate of birth defects and infant mortality,^{xix} and one of the highest rates of breast cancer in the country.^{xx} This last fact is significant because African American women are statistically less likely to contract breast cancer than white women and the women in this community are getting breast cancer younger and of a more deadly type.^{xxi}

The Methodologies of this Oppressed Group

The view that all knowers and knowledge are situated is one of the most important and tangible insights generated in feminist science studies. It has resulted in epistemological and methodological reframings of scientific practices and has led to ongoing critical work in feminist science studies and feminist epistemology. Although Donna Haraway was the first to use the term “situated knowledges” in her 1991 essay “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,”^{xxii} it has been developed more fully in feminist philosophy of science in recent years by such writers as Sandra Harding^{xxiii} and Lorraine Code^{xxiv}, and has been enhanced by work outside of science studies by feminist theorists such as Patricia Hill Collins^{xxv}, Sarah Hoagland^{xxvi}, Chandra Mohanty^{xxvii}, and Chela Sandoval.^{xxviii} At its most basic level, situated knowledge is the claim that all knowledge is generated from a knower’s particular location, which consists of the complex unfolding resulting from one’s social, material, epistemological, gendered, lived bodily experience. There is no purely objective knowledge in the traditional sense of objectivity, because there are no individual purely

objective knowers. As the epistemological components of situated knowledges developed, there also came an increasing emphasis on its methodological import.

In *Methodology of the Oppressed* Chela Sandoval distills Haraway's arguments by developing its methodological significance. Sandoval argues that when one works from an "oppositional consciousness" or a situated knowledges position, she is necessarily employing the methodology of the oppressed.^{xxix} Employing the experience of subjugation or learning to see and know from the perspective of the oppressed creates transformative engagements with the world. The act of working to locate, articulate, and critique one's own subject position when one is oppressed and then critically engaging the world from this perspective to create change is an unexpected methodology for people who have been subjugated. Sandoval argues that "[i]t has been assumed that the oppressed will behave without recourse to any *particular* method, or rather, that their behavior consists of whatever acts one must commit in order to survive, whether physically or psychically."^{xxx} The oppressed do have a methodology and that it is deeply epistemic and strategic because of its situated nature. This insight is important because it requires that we see actions of oppressed groups as grounded, knowledge infused, intentional engagements with the world, instead of as the random acts of desperation. Situated knowledges as the "methodology of the oppressed can now be recognized as the mode of being best suited to life under neocolonizing postmodern and highly technologized conditions of the first world..."^{xxxi}

The Mothers Committee of BVHP provides an apt example of members of an oppressed group working strategically to change their living conditions. Members of the Huntersview Tenants Association formed a working relation with Greenaction for

Environmental Health and Justice. Thus, the Tenant Association's first strategy was coalition building with a like-minded, differently situated group, Greenaction, which had some connections and resources that BVHP community members needed. From this relationship Bayview Mothers Environmental Health and Justice Committee was formed. With Greenaction and the Mothers Committee now collaborating the members of the Mothers Committee were able to recruit and train people from their community. They obtained grant funding, gathered and assessed scientific information about their local environment, local disease rates, health outcomes, as well as population statistics and information about businesses and industry in their community. With these resources in hand they developed a comprehensive and persuasive set of data that provided a "toxic inventory" of BVHP. "Toxic inventory" is a term normally used by governmental and scientific organizations such as the Environmental Protection Agency or the Regional Air Pollution Control Agency to describe inventories of "chemicals released to ... water, air and land" in order to conduct toxic risk assessments, assessments of the likelihood of a chemical causing disease or death.^{xxxii}

The Mothers Committee self-consciously utilized the terminology, methods, and resources most likely to convince those with power to listen and act. With the assistance of Greenaction, they trained themselves in and used standard research methods, methods that most people assume are outside the reach of a marginalized community, to effect change. With solid data in hand and the ability to make themselves heard and listened to they were able to achieve one of their primary goals—"organizing the community to close the PG&E Hunters Point Power Plant."^{xxxiii} To reiterate Sandoval's point in terms of the Mothers Committee, they behaved *with* recourse to particular methods and did so

such that they would survive physically and psychically.^{xxxiv} Thus, the methodology of this oppressed group was strategically oriented for the survival of their community on multiple levels.

Strangers to the Social Order

Sandoval's framing of situated knowledges as a methodology is an important move in the situated knowledges arguments. In making this connection she is not only asking her readers to recognize what it means to know from the position of the oppressed, she also is demanding that we recognize how we *practice* from this position. "Situated knowledges" as a term fills a dual role, which starts to become apparent with Haraway's and Sandoval's arguments. Situated knowledges is epistemological in that it is a theory about how to gain more accurate or more objective knowledge. It also explains how individuals and groups have particular epistemological worldviews based on their material location. Sandoval pushes the methodological implications even farther than they had been. Thus, as it becomes a tool to generate knowledge about the world situated knowledges becomes increasingly methodological.

The members of the Mothers Committee of Bayview Hunters Point are certainly valuable strangers to the social order, in the sense that Harding articulates in *Whose Science, Whose Knowledge?* It is hard to imagine a group whose members are more outside of science—they are female, African American and living in one of the poorest, most toxic, and most violent communities in the U.S. They self-consciously utilize this positioning to their advantage as part of their methodology as an oppressed group. It is no accident that they are the "Mothers Committee." Like many women's groups, such as Mothers Against Drunk Drivers or Mothers of the Disappeared in Argentina, they clearly

center their group's identity and interests on gender and the care and stewardship of their community. Just as mothers in many parts of the world are responsible for the health, care, and well-being of their community and surroundings, the Mothers Committee embraces this as an instrumental part of their identity; they unite around it, and use it to guide what they know and what they can and should do.

From their perspective as mothers and stewards of their community, they have seen that their “children have suffered chronic nosebleeds and asthma attacks;” they have experienced the high rates of breast cancer and birth defects; they know what is like to keep their windows shut for fear their children are inhaling particulates from local industry. They know their environment is toxic because they live in it and have to care for others that live in it.^{xxxv} And their knowledge about their community is accurate. In the 2006 “Health Programs in Bayview Hunters Point and Recommendations for Improving Health” it was reported that 10% of the community had asthma; 15.5% of the children had asthma. The asthma rate for the general U.S. population is 5.6%.^{xxxvi} The rate of birth defects in the area was “44.3 per 1000, compared to 33.1 per 1000 births for the rest of San Francisco County.”^{xxxvii} The breast cancer rate is double that of the rest of San Francisco and one of the highest in the country.^{xxxviii} Furthermore, they know that breast cancer studies that only look at threshold levels, studies of individual chemicals and their individual toxicity to humans, and claim that the particular chemicals in their community cannot cause cancer are not accounting for the complexity of their lives in which they live with multiple chemicals over long periods of time. As one community member stated: “the standards that [scientists are] using, measuring, environmental studies are not based on reality. They are based on laboratory needs and economics.

Therefore they are not an appropriate instrument to use to study *this phenomenon we're addressing*.”^{xxxix} They know because of how they are situated.

Although Harding grounds her earlier work in the lives of women, she did so in a way that is distanced from the lives of actual women and their material location. Chandra Mohanty in *Feminism without Borders: Decolonizing theory, practicing solidarity* is explicit in formulating epistemological positions that allow us to consider how physical location and global capitalism merge to create particularized systems of knowledge that also reflect some common interests of women in general. Mohanty points to the “bodies and lives of women and girls from the... Two-Thirds World” arguing that “global capitalism writes its script” on these bodies.^{xi} If we attend to and theorize about the experiences of these women and girls, we are able to take apart global capitalism, recognizing its inherent racism, sexism, and classism, and engage in anti-capitalist resistance. In “The Project of Feminist Epistemology: A Non Western Feminist on Epistemology” Uma Narayan rightly points out that feminists need to engage the “methodological habit” of situating the experiences of oppressed women in their “historical and cultural settings” yet avoid making “comparisons across such settings, given the dangers of attempting to compare what may well be incomparable in any neat terms.”^{xli} White U.S. feminists in philosophy of science worked to take the kind of criticisms made by Narayan and Mohanty to heart. This can especially be seen in Harding’s work.

This attention of moving between the particular and the collective becomes well articulated in Sandra Harding’s *Science and Social Inequality: Feminist and Post-Colonial Issues*, a sustained analysis of global injustice and science.^{xlii} Perhaps in a

desire to be more explicit about the methodological components of her argument, Harding begins to describe standpoint epistemology as a situated knowledges position. Harding's newer arguments for situated knowledges move between the particular and the collective while rejecting the epistemological individualism in mainstream epistemology and science studies. By drawing on the work of feminist ethnoscientists such as Vandana Shiva and feminists working on gender and development, such as Rosi Bradiotti and Drucilla Barker, Harding develops a more materially grounded standpoint epistemology. This represents an important move in feminist science studies because as she begins to think about "women collectively, in their culturally particular social situations," she formulates a dynamic and concrete conception of knowledge generated by women in and about the situations in which they live.^{xliii} Harding points to the most basic aspects of experience, the place which one inhabits and the way gender mediates one's experience of place, to make point to the concrete nature of situated knowledge. She negotiates the difficult terrain between local and global, emphasizing differences and commonalities in experience and situation.

Bayview Hunters Point is a place to know

This increased focus on materiality and the concrete nature of situation and its epistemic and methodological importance for science is especially apparent in Lorraine Code's argument for ecological thinking. In *Ecological Thinking: The Politics of Epistemic Location* Code emphasizes the importance of place, as habitat and as an epistemological location. She argues that a significant aspect of situated knowledge is that it is not just a place **from which** to interrogate and generate knowledge, location—social location and physical location/habitat—is a place **to be** interrogated. Code views situation or "habitat

as a place to know” and emphasizes that, like all living things, humans are ecological subjects.^{xliv}

Like many oppressed groups, the community of Bayview Hunters Point live in conditions that are not conducive to living well, conditions that cause and exacerbate illness. As I stated earlier in the paper, the Mothers Committee points to a number of environmental conditions contributing to the poor health of the community. Whether we think about environment broadly to include the way humans inhabit space and the way space is constructed, or narrowly to merely include air, water, soil quality, with either way of understanding the situation of the Mothers Committee, it is not hard to see how the place they inhabit is unique and how it is a place to know and to know from.^{xlvi}

Bordering the neighborhood of the Mothers Committee is an EPA Superfund Site, The Hunters Point Naval Shipyard, which has numerous different types of contaminants; among them are radiological, mercury, lead, methane, and particulate matter.^{xlvi} The Hunters Point Naval Shipyard was established in 1869 and operated through 1991 when the Department of Defense listed it for closure by the Department of Defense.^{xlvi} From the late 1940s through to the late 1970s it was also the site of the National Radiological Defense Laboratory. In 1989 Hunters Point Naval Shipyard was put on the National Priorities list, thus designating it an EPA Superfund Site.^{xlvi} By 1992 the EPA, the Navy, and the State of California signed a Federal Facilities Agreement to investigate and clean up the shipyard. It was divided into six different sites (A-F) to facilitate clean up. Although many of these sites share borders with the BVHP neighborhood, Parcel E is less than 800 feet from family homes. It is also potentially the most dangerous parcel of land in the shipyard. Parcel E “is a 46-acre industrial landfill which operated from 1958

to 1974. The landfill received liquid chemical waste, asbestos, domestic wastes and refuse, dredge spoil materials, sandblast grit solvent wastes [such as arsenic and lead], and low-level radioactive wastes from shipboard radium dials including electronic equipment.”^{xlix} Furthermore, housing in this area existed **prior** to the landfill. So the Navy made a decision to place this landfill near these homes. Thus, the people living in this part of BVHP were doing so in immediate proximity to this landfill. Numerous studies link cancer to low-level radiation exposure¹ and many other health conditions, such as lung disease, childhood developmental delay, and birth defects, are linked to exposure to the other materials contained in the landfill.

Social factors contribute to poor health in BVHP. In “Health Programs in Bayview Hunters Point and Recommendations for Improving the Health of Bayview Hunter’s Point Residents” Dr. Mitchell H. Katz argues that “ BVHP experiences a disproportionate number of social determinants with adverse effects on health, ranging from social isolation to institutional and environmental racism to lack of access to healthy food.”^{li} Access to healthy food is a serious challenge facing community members. Until 2008 there were no full service grocery stores in the community. A survey launched by the Community Capacity Building Project reported that less than 5% of foods stocked in BVHP stores consisted of fresh produce. The most stocked products were junk food, alcohol, and tobacco.^{lii} Mark Ghaly, co-chair of the working group and director of the Southeast Health Center stated, “This lack of options contributes to the health problems that plague the area.... If we can get more convenient access to healthy foods, it would make a difference among the citizens I serve at my clinic.”^{liii} In December of 2007 it was

announced that Tesco, a British grocery chain, would open the first full service grocery store in BVHP.

Violence is the leading cause of shortened life expectancy in BVHP. This obviously is a problem on its own, but it also contributes to the overall stress levels and poor health experienced in the community. Residents report that they don't feel safe walking to neighborhood parks for exercise or to get their children outside.^{liv} Domestic violence is high in this community, which affects women, children, and the elderly on multiple and significant levels.^{lv} Furthermore, there is not ready access to healthcare in BVHP. For example, even though the children of Bayview Hunters Point have a disproportionate number of health problems and the community has the "highest density of children, [as of 2006 it still] has only one pediatrician in private practice."^{lvi} All of these factors function to make BVHP a toxic environment, as the Mothers Committee "Toxic Inventory" report reveals.

The Mothers Committee provided a fuller accounting of the health of their community by using BVHP as a place from which to know; they used their lives in this location as an epistemic site. They also viewed BVHP as a place to know—they gained the scientific knowledge about their physical surroundings and how they related to the health of their community to construct a convincing argument, and they reflected how their situation and their knowledge of their location is unique and authoritative. They were able to show that they are ecological subjects impacted by their environment in multiple ways. Finally, the Mothers Committee initiated change in their community and pointed to other changes that need to take place for their community to live well.

The work of the Mothers Committee, like the work done in feminist science studies and feminist epistemology, represents the newer formulations of situated knowledge that are increasingly concrete and focused on local and global justice. The willingness to negotiate the particular and the shared experiences of women and marginalized communities, more generally, not only allows for more accurate knowledge with which to effect change, it also enables groups to self-consciously reach toward each other to build coalitions just as the Huntersview Tenants Association and Greenaction reached toward the other forming the Mothers Committee and affecting change in Bayview Hunters Point.

ⁱ <http://epi.grants.cancer.gov/LIBCSP/>

ⁱⁱ Jennifer Fishman, "Assessing Breast Cancer: Risk, Science and Environmental Activism in an "At Risk" Community," In *Ideologies of Breast Cancer*, ed. Laura Potts (N.Y.: St. Martins Press, 2000) and Erin Allday, "Breast cancer mortality studied in black women," San Francisco Chronicle (Friday, May 18, 2007).

ⁱⁱⁱ Debbie Gillis. Comparison of Incidence of Cancer in Selected Sites between Bayview/Hunters Point and San Francisco and the Bay Area. Bureau of Epidemiology, Disease Control and AIDS, San Francisco Department of Public Health, 1995.

^{iv} Allday, "Breast cancer mortality studied in black women."

^v Nancy Krieger and Mary Bassett, "The Health of Black Folk: Disease, Class, and Ideology in Science," In *The 'Racial Economy of Science'*, ed. Sandra Harding (Bloomington: Indiana University Press, 1993). 162.

^{vi} <http://seer.cancer.gov/statfacts/html/breast.html>

^{vii} <http://epi.grants.cancer.gov/LIBCSP/>

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- ^{viii} Bayview Hunters Point Mothers Environmental & Justice Committee. "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco" 2004. 2.
- ^{ix} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 2.
- ^x Greenaction's mission is a U.S. organization that works nationally and internationally to "mobilize[] community power to win victories that change government and corporate policies and practices to protect health and to promote environmental justice." <http://www.greenaction.org/>
- ^{xi} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 2.
- ^{xii} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 2.
- ^{xiii} <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphanumeric/Hunters+Point+Naval+Shipyard?OpenDocument#threats>
- ^{xiv} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 5.
- ^{xv} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 5.
- ^{xvi} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 5.
- ^{xvii} Fulbright, "Big victory for Hunters Point activists," A-1.
- ^{xviii} Mitchell H. Katz M.D., "Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter's Point Residents," (Sept 19, 2006). Accessed from: <http://www.sfdph.org/dph/files/reports/default.asp>
- ^{xix} Katz, "Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter's Point Residents."
- ^{xx} Fishman, "Assessing Breast Cancer: Risk, Science and Environmental Activism in an "At Risk" Community," and Allday, "Breast cancer mortality studied in black women," San Francisco Chronicle.
- ^{xxi} Black women are more likely to die from breast cancer than white women. 33.5 deaths per 100,000 compared to 24.4 deaths per 100,000. See <http://seer.cancer.gov/statfacts/html/breast.html>
- ^{xxii} Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature*. (N.Y.: Routledge, 1991).
- ^{xxiii} Sandra Harding, *The Science Question in Feminism*, (Ithaca, N.Y.: Cornell University Press, 1986.); Sandra Harding, *Whose Science? Whose Knowledge?: Thinking from Women's Lives*, (Ithaca, N.Y.: Cornell University Press, 1991.); Sandara Harding, Sandra, . *Is Science Multicultural?* (Ithaca, N.Y.: Cornell University Press, 1998); Sandra Harding, *Science and Social Inequality*. (Chicago: University of Illinois Press 2006); Sandra Harding, *Sciences from Below: Feminisms, Postcolonialities, and Modernities* (Durham: Duke University Press, 2008).
- ^{xxiv} Lorriane Code, *What Can She Know?* (Ithaca, N.Y.: Cornell University Press, 1991). Lorraine Code, *Rhetorical Spaces: Essays on Gendered Locations*. (New York, N.Y.:

Routledge. 1995). Lorraine Code, *Ecological Thinking*. (Oxford: Oxford University Press, 2006.)

^{xxv} Patricia Hill Collins, "Learning from the Outsider Within," *Social Problems* 33(6) (1986) 14-32; Patricia Hill Collins, *Black Feminist Thought 2nd edition*. (New York, N.Y.: Routledge, 2000).

^{xxvi} Sarah Hoagland, "Resisting Rationality", in *Engendering Rationalities*. In eds. N. Tuana and S. Morgen. (New York: SUNY Press, 2001).

^{xxvii} Chandra Mohanty, *Feminism Without Borders*. (Durham: Duke University Press, 2003).

^{xxviii} Chela Sandoval, *The Methodology of the Oppressed* (Minneapolis: University of Minnesota Press, 2000).

^{xxix} Sandoval, *The Methodology of the Oppressed*, 175.

^{xxx} Sandoval, *The Methodology of the Oppressed*, 176.

^{xxxi} Sandoval, *The Methodology of the Oppressed*, 176.

^{xxxii} USA EPA <http://www.epa.gov/history/org/tri/01.htm>

^{xxxiii} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 30.

^{xxxiv} Sandoval, *The Methodology of the Oppressed*, 176.

^{xxxv} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 6

^{xxxvi} Katz, "Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter's Point Residents." 8.

^{xxxvii} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 6.

^{xxxviii} Mothers Committee, "Pollution, Health, Environmental Racism and Injustice: A Toxic Inventory of Bayview Hunters Point, San Francisco," 6; and Allday, "Breast cancer mortality studied in black women."

^{xxxix} Fishman, "Assessing Breast Cancer: Risk, Science and Environmental Activism in an "At Risk" Community," 197. My emphasis.

^{xl} Mohanty, 2003, p. 234.

^{xli} Uma Narayan, "The Project of Feminist Epistemology: A Non Western Feminist on Epistemology" In *Gender/Body/Knowledge*, eds. Susan Bordo and Alison Jaggar. (New Brunswick: Rutgers University Press 1989) 260.

^{xlii} Harding, *Science and Social Inequality*.

^{xliii} Harding, *Science and Social Inequality*, 99.

^{xliv} Code, *Ecological Thinking*, 37.

^{xlv} One could be concerned that "to know" from a place could lead to confined or narrow vision. In the case of oppressed groups their vision tends to be broader than that of the mainstream. As Patricia Hill Collins and Chela Sandoval articulate, this the needs of survival requires that these groups have an outsider/within perspective, where they are able to know their situation intimately while also knowing that of their oppressors.

^{xlvi} <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphanumeric/Hunters+Point+Naval+Shipyard>

^{xlvii} <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/Hunters+Point+Naval+Shipyard>

^{xlviii} <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/Hunters+Point+Naval+Shipyard>

^{xlix} http://www.atsdr.cdc.gov/HAC/PHA/hunterspoint/hun_p1.html

¹ For example see, G.M. Matanoski et al, “Cancer risks are low-level radiation in U.S. shipyard workers,” *Journal of Radiation Research (Tokyo)* 49(1) January 2008 83-91; Hongning Zhou et al, “Radiation risk to low fluences of α particles may be greater than we thought,” *Proceedings of the National Academy of Sciences* 98(25), (2001)14410-14415; Wing S, Richardson D, Armstrong D, Crawford-Brown D. “A reevaluation of cancer incidence near the Three Mile Island nuclear plant: the collision of evidence and assumptions,” *Environmental Health Perspectives* 105(1997) 52-57 .

^{li} Katz, “Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter’s Point Residents.” 2.

^{lii} Katz, “Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter’s Point Residents.” 11.

^{liii} James Temple, “After years, Bayview will finally get full-service grocery store”, *San Francisco Chronicle* (Wednesday, December 12, 2007).

^{liv} Katz, “Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter’s Point Residents,” 13.

^{lv} Katz, “Health Programs in Bayview Hunters Points and Recommendations for Improving the Health of Bayview Hunter’s Point Residents,” 18.

^{lvi} Ilene Lelchuk, “Bayview Hunters Point S.F.'s invisible majority: Area with highest density of children is most underserved,” *San Francisco Chronicle*, (Wednesday, May 31, 2006), B1.