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Reassessing the Nuclear Public Sphere: Nuclear Counterpublics and Deabstracting the "Secret" Bomb through *Nucliteracy*

My goodness, aren't atoms wonderful! They are easier to understand than Dagwood!

-Blondie Bumstead in *Dagwood Splits the Atom*

On the cover page of the 1949 publication *Dagwood Splits the Atom*, a visibly perplexed Dagwood Bumstead is affectionately kissed by his slightly bemused wife Blondie; as Dagwood embarks on one of his many futile attempts to split the nucleus of a Uranium ^{235} atom with an axe. After multiple comic forays Dagwood finally manages to split the nucleus of the atom with the help of the hypnotist and magician Mandrake and a "neutron bazooka"—leading to his wife Blondie's relieved assertion that atoms are indeed "easier to understand than Dagwood" (*Dagwood 22).* Significantly, the connotations of Blondie's seemingly naïve remark move considerably beyond the gender-biased rhetoric that typified patriarchal assumptions regarding the American "flapper" culture of the 1950s—arguably for the first time in popular culture, the nuclear phenomenon had broken out beyond the confines of the military-industrial complex into the public sphere.

While documents related to the nuclear were produced by the American government as early as August 12, 1945, "three days after the destruction of Nagasaki" (Kinsella and Mullen 73) there is considerable debate regarding the public nature of such texts. Arising from the above premise, this paper traces the development of the American *nuclear public sphere* through examining government and civilian documents, exploring how the

cessation of above ground nuclear bomb testing fundamentally altered the nature of nuclear discourses. I argue that the abstraction and disembodiment of the nuclear phenomena, with the removal of the nuclear from the performative public arena led to the reconstitution of the bomb from a state-secret to a dominant cultural-political entity that extended the *private* technocratic community into the public domain.

Consequently, through a critical analysis of Stanley Kubrick's *Dr.Strangelove* I posit that as a representative post-nuclear apocalyptic text, it challenges governmental publicity through a dynamic nuclear literacy or *Nucliteracy*—forcing a re-acquaintance with the physical threats of the bomb and leading to the initiation of resistive nuclear counterpublics. In tracing the genealogy of the nuclear discourses, I will refer to four distinct periods of Atomic Culture[1] which are:

a) Early Atomic Culture (1945-1948)

b) High Atomic Culture (1949-63)

c) Late Atomic Culture (1963-1991)

d) Post-Atomic Culture (1992-Present)

I will also emphasize that this dissemination of nuclear discourse beyond the domains of the militaro-industrial-scientific complex following the remission of above-ground testing, cannot be equated with the extension of the hegemonic power implicit in techno strategic[2] discourses to a larger public domain. Rather as this paper hopes to show, these textual signifiers that were

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[1] Postulated by Scott C. Zeman and Michael Amundson in their book *Atomic Culture: How we Learned to Stop Worrying and Love the Bomb*. It might be pertinent here to briefly mention why these set of dates are critical towards the division of the Nuclear Age. Early Atomic Culture (1945-49) indicated the period between the bombings of Hiroshima and Nagasaki and the first nuclear bomb test by Soviet Russia in 1949. High Atomic Culture continued till 1963 which was the year when nuclear testing moved underground. Late Atomic Culture beginning in 1963 ended in 1991 with the breakdown of Soviet Russia and the end of the Cold-War.

[2] The term "technostrategic discourse" which is central to discussions on the nuclear was coined by Carol Cohn "to represent the intertwined, inextricable nature of technological and nuclear strategic thinking…to indicate the degree to which nuclear strategic language and thinking are imbued with, indeed constructed out of modes of thinking that are associated with technology" (Cohn 690).

created for public consumption maintained the governmental hegemonic power structure that was in vogue in the pre-1962 nuclear era. The newly emerging "nuclear public sphere" was therefore a *pseudo* public sphere, resulting from a concerted effort on part of the technocrats to provide the public domain with an illusion of having a stake/say in the nuclear discourse—while in reality nuclear policies and decisions were still deeply entrenched in techno-militaro-political communities.

Early Atomic Culture and the "Secret" Nuclear Bomb

> So the atomic Age opened in paradox: Citizens must be informed participants in atomic matters; while national security limits their access to information
>
> - Kinsella and Mullen, *Nuclear Legacies*

The strategic disjunction between the technocracy of the atomic phenomenon and the so-called nuclear public sphere, which gained momentum during the period of High Atomic culture, had its origin in the Early Atomic Culture Period. From its inception, nuclear discourse has been shrouded in a veil of secrecy—a phenomenon that had to be kept secret, as part of the larger psychological warfare that the United States Government was engaged in, with its adversaries. This rhetoric of the atomic bomb having a psychological impact can be traced back to President Truman's assertion after the bombings of Hiroshima and Nagasaki that the bomb was meant "to make a profound psychological impression on as many inhabitants as possible" (Garrison). This politics of secrecy integral to psychological warfare had surrounded the bomb since the initiation of the Manhattan project; it was now continued and strengthened after the events of Hiroshima and Nagasaki as the militaro-scientific-political discourses associated with nuclear technologies were limited strictly within the confines of the technocratic community.

State ordinances such as the 1946 Atomic Energy Act and the 1947 National Security Act "effectively removed huge areas of governmental affairs from citizen's purview" (Masco 1). The subsequent production of the "national security state after World War II" meant that the nuclear program that had established American supremacy on the global scenario needed to be accompanied by an "expansion of state secrecy devoted to protecting it" (Masco 1). Such moves ensured that "with regard to nuclear issues, the public (was) conceived as a crowd to be calmed rather than co-creators of public-policy" (Schiappa qtd. in Kinsella and Mullen 7)

On the other hand, the triumph of allied forces in WW-II, accelerated through the nuclear power of American forces , meant that "like most of the Manhattan Project scientists, the public feeling was euphoric" (Zeman and Amundson 3). Pertinently, the catastrophic power of the nuclear bomb that had apparently safeguarded American sovereignty, ensuring the freedom of its citizens from the throes of fascist powers, was also potentially a devastating threat for the nation if it fell into unfriendly hands. This meant that the due to the threats associated with the bomb it was necessary to be construed as a "secret", paradoxically to be protected from the very American public that it was purported to protect. In fact it might be inferred that this atmosphere of constant tension regarding the effective custodianship of nuclear secrets implied that no one was above state suspicion—be it foreign powers or state subjects.

Therefore a clear binary had been established between the *private* technocratic community involved in the wartime efforts and the *public* American population, who were passive observers of the bomb and its effects. In this context it must be clarified that "belonging to a public seems to require at least minimal participation" (71) from each personal entity. This implies granting to the personal being at least a minimal level of access to the politics that constitutes the public. However, the policy of secrecy around the discourses related to the bomb

implied that the politics of the public sphere was not only depersonalized but indeed privatized and restricted within the technocratic community. In a reversal of the general tenet that the "personal is political" explicated by Michael Warner as that "politics should be personalized" (Warner 34), the political was no longer personal but privatized—especially in the context of the bomb.

The power of the bomb meant that anything related to it was a closely guarded state secret that needed to be protected. As Joseph Masco notes:

> A new concept of official secrecy was established in the aftermath of World War II that increasingly positioned citizens as a threat to state security, and separated huge parts of the government from either public scrutiny or citizen participation. (1)

While decisions involving the development and consequent use of the nuclear bomb had never been in the purview of the general population, the end of the war led to the further consolidation of scientists, defense intellectuals through national policies into highly specialized and compartmentalized structures. In fact one of the striking features of "nuclear weapons science—as a science—is that…it (is) most powerfully determined by nonscientists" (Masco 349) implying that decisions regarding democratizing nuclear discourse was clearly out of the question. More importantly in the post WW-II period between 1945-1949, the U.S. nuclear policy makers were under no coercion to extend the nuclear into the public sphere since the "discursive construction" of the Cold War had not yet proliferated and "most Americans wanted to see their own era as a time of consensus, confidence" (Chernus 5).

Interestingly, during this period of Early Atomic Culture (1945-1948) when state institutions were involved in fortifying the structures of secrecy around nuclear technology there was a simultaneous celebration of the bomb through popular culture that "shaped public opinion"

(Zeman and Amundson 3). One of the first civilian reports regarding the bomb was by the noted journalist William Laurence, the only civilian allowed to witness the Trinity Test (Los Alamos, 1945). Laurence perceived the first atomic test as a "…sunrise such as the world had never seen….one felt as though one where present at the moment of Creation" (Laurence 10); a profoundly elevating religious experience. Such a response was in tune with the religious imagery that Robert Oppenheimer, one of the lead scientists of the Manhattan project had used after the Trinity Test. Quoting the Hindu Scripture the *Bhagvad Gita,* Oppenheimer had commented "Now I am become Death, the destroyer of Worlds" (Rhodes qtd. in *Nuclear Technoaesthetics* 352). The glorification of the nuclear bomb through religious rhetoric was an especially effective strategy transforming the bomb into a transcendental form and diminishing its actual destructive effects while also elevating these effects into an aesthetic nuclear sublime.

The atomic experience was also lived through comic book representations of the nuclear through popular characters such as Dagwood, Mandrake, Popeye and through various food and beverages such as "an intoxicating beverage known as the 'atomic cocktail', (a) rich desert spiked with liqueur called the 'Atomic Bomb', and an 'atomic bomb ring' available through Kix Cereal."(Zeman and Amundson 3). Viewed through Michael Warner's assertion that the notion of a public enables a "reflexivity in the circulation of texts among strangers who become, by virtue of their reflexively circulating discourse a social entity", these products of popular culture became the "reflexively circulating" texts—that were aimed at creating the semblance of dialogue, albeit false, between the nuclear state and its subjects. Such a move to "shape public opinion" through a glorification of the atomic enterprise was critical for the American government, since in the absence of a discursive public space, these cultural signifiers played a

vital role in legitimating the nuclear program for the American population—while also providing them with an illusion of participation in the larger nuclear aspirations of their country.

"First Lightning" and the Rise of Nuclear Deterrence

"The Russians tested their first atomic bomb, and deterrence was in place"

- Martin Amis

A radical change occurred in the politics of the nuclear with the successful testing of Soviet Russia's first nuclear bomb "First Lightning" in 1949 and the effective declaration of Soviet Russia as a nuclear superpower. Fears of a nuclear conflict and a consequent holocaust that had been latent within the public imagination since the events of August 1945 were suddenly catalyzed within the general populace. The situation was not helped by governmental discursive models that construed the Cold war as an "apocalyptic struggle" and increasingly suggested that "communism, nuclear war and economic mismanagement all threatened to destroy the nation utterly" (Chernus 7). As Martin Amis' prefatory comment to this section underlines, the declaration of Soviet Russia's nuclear capabilities was critical, because for the first time in the history of the atomic phenomenon nuclear deterrence had established. It is interesting to explore here the ramifications of the concept of deterrence as postulated by Michael McCanles:

> Deterrence depends not so much on possessing military capability and the willingness to use it, as on the communication of messages about that capability and that willingness (11)

In the period preceding the Soviet nuclear test, the unwillingness of the American technocratic community to extend the nuclear into the public domain was effectively due to the sole presence of America in the nuclear club. Between 1945-1949, the lack of a competitive or threatening adversary in the global nuclear scenario implied that American nuclear policy was under no pressure to declare itself as either a benign or a malevolent power. While documents related to the nuclear such as the Smyth report of 1945 had been released in the immediate aftermath of the Japanese bombings, they were prefaced with disclaimers that stated:

> The average citizen cannot be expected to understand clearly how an atomic bomb is constructed…but there is in this country a substantial group of engineers and scientists who can understand such things… The present report is written for this professional group … (Preface, Smyth Report)

Such reports clearly indicated that even though the official standpoint was that "in a free country like ours such questions (nuclear) should be debated by the people" (Smyth 226), conflicting caveats specifying that "persons disclosing or securing additional information by any means whatsoever without authorization are subject to severe penalties under the Espionage Act" implied that the nuclear needed to confined within the private sphere of techno strategic discourse. The entry of Soviet Russia into the nuclear race, however ensured that the American government could no longer maintain the non-committal status-quo and as McCanles underlines "communication of messages" becomes critical not only towards the process of deterrence but also for addressing public sentiments. Publications such as *Dagwood Splits the Atom* created through a joint collaboration between the United States Military and King Features Syndicate in the same year that marked the first nuclear tests by Soviet Russia, were motivated specifically towards addressing the apocalyptic concerns in the public domain.

In order to allay public fears, government sanctioned documents related to the nuclear sphere began circulating within the purview of the common public for reassuring its citizens—that atomic culture and the nuclear bomb were indeed as benign and decipherable as the suburban white middle class American male (*Dagwood* 27). Atomic epistemology disseminated through a genial suburban white middle class male such as Dagwood Bumstead indicated the dual strategies of the American Government—extending the feel-good factor that had been created in the post-war period while extending the privatized discursive space of the techno-militaro-political community into the public domain so that the nuclear arms race could be proliferated and justified. Importantly the only way that such an extension of the privatized "secret" bomb could be made into the public domain, without compromising the governmental hegemony, would be by making the bomb a "fabulously textual" phenomenon (Derrida 23).

The "fabulously textual" bomb

> "…to anyone who contemplates them, the nuclear weapons can only be a permanent invisible terror that offers no moral enlightenment"
>
> -David E. Nye, *American Technological Sublime*

In his influential book the *American Technological Sublime* David Nye argues that "nuclear weapons are so terrifying that they cannot be experienced through an aesthetic of the sublime" (150). Nye's argument although holding validity within the domain of civilian discourse, however, becomes questionable when purveyed from the viewpoint of the militaro-industrial complex that have "banked their careers on a diametrically opposed proposition, namely, that nuclear weapons are so powerful that they fundamentally reshape human consciousness…" (*Nuclear Technoaesthetics* 350). Such a comment underlines the fact that one

of the primary reasons governmental bodies had refrained from producing explicit textual signifiers related to the bomb in the Early Atomic and High Atomic eras, was because as a sensory experience "the profundity of the (nuclear) sublime[3] is inexpressible, placing that outside language" (350).

This element of non-translatability of the performative bomb into textual discourses, meant that beyond the few governmental reports and the caricatured glorifications in popular culture, the bomb had limited linguistic expression during the period of above-ground testing. Understood through Warner's model that posits "publicity…meaning not merely publicness or openness but the use of media, an instrumental publicness associated with advertising and public relations", the bomb in the pre-1962 era was publicized through its sensory influences rather than through any form of discursive practice (Warner 30). Interestingly therefore, the "nuclear public sphere" extant before the ban on above ground testing was largely a detextualized, non-verbalized sphere, which raises vital doubts regarding the 'public' nature of this sphere. Since one of the critical nodes in the creation of a *public* and a consequent "public sphere" is that it must be "self-organized" through textualized discursive spaces, it can be decisively inferred that in the pre-1962 era the nuclear public sphere had not yet been constituted.

With the abatement of American above ground nuclear testing on July 7, 1962 reconfiguring "sensory access to the exploding bomb, both abstracting its destructive potential

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[3] Masco highlights that "Immanuel Kant offers two species of the sublime that informs nuclear weapons science: the *dynamic sublime* which is provoked by the terror of seeing a tornado or an erupting volcano from a safe distance, and the *mathematical sublime,* which begins with the inability to comprehend the scale and vastness of a mountain or a river" (my emphases; 351)

and encouraging an intellectual engagement with complexity" (*Nuclear Technoaesthetics* 350) not only had the bomb lost its performative power but most importantly the potency of the bomb had now been transferred back into its place of origin—the techno-military weapons production complex[4]. Critically, the loss of the nuclear from the visible arena implied that the technocratic authority could no longer justify the nuclear program to the general public by following their erstwhile strict policy of discursive containment.

However, this crisis in publicity that arose needs also to be contextualized within the larger political and social context, that had led towards the banning of above ground testing. In the period of High Atomic Culture (1949-1963) the series of above ground tests, while providing effective displays of the might of the American Nuclear arsenal, had also led to widespread concern regarding the environmental effects of such tests. In fact "by the late 1950's, public concern about the global health effects of atmospheric fallout was directly competing with the official national security discourse supporting the bomb" (*Nuclear Technoaesthetics* 354). The Atmospheric Test Ban Treaty of 1963 that ultimately put a ban to all nuclear explosions in the atmosphere, under water, and outer space leading to the move towards underground testing, however, significantly complicated the nuclear ambitions of the American state.

While in the techno-scientific domain the challenges of underground testing implied "how to both contain the explosion and make it visible to machine sensors" (Masco 355) in the political domain it was the challenge of convincing antagonistic powers that the American nuclear arsenal was superior to that of any other nation. Paradoxically this exhibition of nuclear superiority was critical towards the maintenance of nuclear deterrence since as McCanles notes:

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[4] It is important to clarify here that weapons' production complexes do not denote merely the sites for the physical production of nuclear bombs but rather includes all those sites that represented important mergers of "scientific and institutional power" (Arjun Makhijani in Kinsella 14), essentially including all discursive sites that were involved in the development of the bomb.

"The only way in which deterrence can be maintained is through the superiority of one side over the other, because only such superiority is capable of being a credible threat" (15). The visible exploding atom bomb, having now literally gone underground along with its ability to influence the human senses, connotated that the dynamic aspect had been subtracted from the nuclear sublime leaving it with a "more limited form, closer to what Kant called the mathematical sublime" (*Nuclear Technoaesthetics* 355). Indeed it became almost imperative that the dynamic element of the nuclear be compensated and as Derrida aptly puts it, this was done by making the bomb "a fabulously textual phenomenon" (23). It is interesting to point out here that Derrida in his much discussed essay *No Apocalypse Not Now,* argues for the nuclear having always been "a phenomenon whose essential feature is that of being fabulously textual, through and through" (Derrida 23). However, as has been already noted in this essay the "fabulously textual" nature of the phenomenon only arose with the removal of the dynamic exploding bomb from the pretense of a public arena. Indeed the "the structures of information and communication…including non-vocalizable language " (Derrida 23) that had been in the period of above ground testing implicitly behind the performative nuclear bomb, had to be brought out into the public domain to keep justifying America's Cold War nuclear policies. This leads to the obvious question: was the nuclear public sphere finally being constituted?

The *Pseudo*-Nuclear Public Sphere

> By 'the public sphere', we mean first of all a realm of our social life in which something approaching public opinion can be formed. Access is guaranteed to all citizens…Although state authority is so to speak the executor of the political public sphere, it is not a part of it.
>
> - Jürgen Habermas, *The Public Sphere* (49)

On July 9, 1962, eight days before the last above ground nuclear test in the US, Secretary of Defense Robert McNamara delivered the commencement address at the University of Michigan-Ann Arbor. The "No-Cities" speech, as it has been popularly known besides making a powerful appeal for the continuation of anti-communist policies also included McNamara's assertion that "I think it is worthwhile to expose the U.S. views on these (nuclear) issues as we have presented them to our allies"—vitally, for the first time an attempt had been made by a member of the technocratic community to open out nuclear discourse in a public forum. McNamara argued, "the mere fact that no nation could rationally take steps leading to a nuclear war does not guarantee that a nuclear war cannot take place" (*The Atomic Archive*). His rhetoric indicated the goal to justify both the "no-first strike" policy of the United States government and the proliferation of its nuclear arsenal.

McNamara's speech besides inaugurating a series of documents related to the nuclear that would be both textually and verbally produced in the next few years[5] marked a distinct change in the way change in the way nuclear discourse had been previously disseminated. While

[5] Some of these documents include :
i) John. F. Kennedy's commencement address at the American University in 1963
ii) John. F. Kennedy's address to the American people on the Nuclear Test ban Treaty,1963
iii) Robert McNamara's "Mutual Deterrence" Speech, 1967

documents related to the nuclear domain had been published for a 'public' audience as early as 1945 (Smyth Report, United States Atomic Bomb Survey of 1946) such documents were clearly created for the techno-scientific community. In marked contrast the slew of documents emanating from Kennedy, McNamara and others in the period following the ban on above ground testing, was intended specifically and definitively for the public. The intentionality behind such texts implied that instead of merely extending the privatized technocratic rhetoric to the citizens as had been done in the previous discursive attempts, there was an actual endeavor by the government to make the nuclear 'visible' to the public.

Critically it is important to note here that since "national identity is not naturally given but culturally constructed out of principles, ideas, attitudes and values" (Hogan) it was important that such information disseminated by the American government would be couched within sanitized rhetoric that contributed towards the anti-communist, free market capitalist ideology that the contemporary U.S. policies postulated. Moreover, in order to make the bomb a visible cultural-political entity that could legitimate US foreign policy it was natural that the destructive potential of the bomb be abstracted. McNamara's assertion in the "No-Cities" speech that "basic military strategy in a possible general nuclear war should be approached in much the same way that more conventional military operations have been regarded in the past" (*The Atomic Archive*) put forward the view that the nuclear bomb was merely another arrow in the American defense arsenal. Perceiving nuclear technology as such a bureaucratic intellectual project made the bomb into "simply a number, not a visceral understanding of the destructive power of the bomb in relation to the human body" (*Nuclear Technoaesthetics* 356).

Habermas' prefatory comment to this section clarifies that a public sphere denotes "Access is guaranteed to all citizens"; however, the *pseudo*-nuclear public sphere that was being

instituted through discursive practices which disembodied the bomb implied that citizen access was being restricted to key aspect of the bomb—its catastrophic destructive abilities. Vitally, the "self-creating" (Warner 71) nature of a public that is a fundamental aspect of the public sphere had been denied, since every node of information was being colored by the ideological assumptions of the state authority. The presence of the state and its industrial allies in formally mediating the creation of a public denied the possibility of a scenario where "citizens could confer in an unrestricted fashion" about the nuclear (Habermas 49). This naturally implied that the hegemonic power of the state discounted the empowering possibilities of this *pseudo*- public sphere.

Dr.Strangelove **and the Hypermasculine Bomb Complex**

"Everything there is to know about nuclear strategy can be learned from *Dr.Strangelove"*

- John Pike, Former Director of Space Policy, *Federation of American Scientists* (qtd. in Lindley)

Filmic representations of the nuclear and post-nuclear came into vogue as early as 1954. *The Atomic Kid* (1954) combined the ideas of a uranium-powered human with nuclear testing. In this film Mickey Rooney is a uranium prospector who "stumbles onto the Nevada Testing site during an atomic blast. Somehow surviving the blast, he spends the rest of the film not only glowing but trying to market himself as the first human to survive an atomic blast" (Zeman and Amundson4). While such comic abstractions of the bomb had been reflective of the social and political perceptions regarding the nuclear in the Early and High Atomic period, the move to underground testing marked a watershed moment in this context.

The environmental, political and social concerns that had led to the Atmospheric Ban Treaty therefore made their mark on representations of the nuclear as well. The initial caricatures regarding the bomb were now being replaced by cultural treatises that dealt with post-nuclear apocalyptic settings, inaugurating a form of neo-apocalyptic culture where the meaning of the word[6] was reconfigured from an uncovering or new beginning; "to an adjective now understood to be a synonym for the catastrophic and the devastating" (Rosen ix).

The year 1964 was a particularly decisive year due to the production of not one but two films dealing with post- nuclear apocalyptic scenarios namely Stanley Kubrick's *Dr. Strangelove* and Sidney Lumet's *Fail-Safe.* Having similar storylines *Dr.Strangelove* was adapted from Peter George's novel *Red Alert* while *Fail Safe* was from the novel of the same name by E.Burdick and H.Wheeler. Although both films were equally ingenious in deabstracting the disembodied atomic bomb through what I term as "nuclear literacy" or *Nucliteracy*—considering the limited scope of this essay I will be focusing on analyzing *Dr.Strangelove* as representative of the social and political function that these texts accomplished. Scholarly material dealing with Stanley Kubrick's *Dr.Strangelove* has focused mainly on the "anti-militarism" of Kubrick (Burgess); his sarcastic take on Cold War policies of the U.S. and Soviet Russia (Southern); or on it being a cultural document illustrating the national paranoia of that period (Lindley). While all of these are valid and important claims in reference to the movie, my attempt in this essay will be explicate how Kubrick's movie went beyond the above assertions to actually promote a form of "nuclear consciousness" to his audience—contributing towards the larger project of public nucliteracy.

In analyzing the film, it is vital to point out the critical importance of the settings; essentially a military base; the 'War Room' where nuclear decisions were taken; and the interiors

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[6] 3The word apocalypse derives from the Greek *apokalypsis* which broken down literally connotes "lifting of the veil/away cover" connoting a new beginning or an end of time itself.(Rosen xiii)

of a B-52 bomber. In basing his cinematic venture within the confines of these three venues, Kubrick had for the first time in nuclear public discourse focused the eye of the audience on the originary point of the bomb—the techno-militaro-industrial complex. Sue Tweg notes:

> The film's three locations look very different but are actually similar in the way they confine the scope and efficacy of individual human action. The locations, united as points along the same spectrum of high-tech impotence, show politicians and militarists, in the hermetically sealed, programmed and sanitized war-room, mayhem amongst the combatants at Burpelson and the B-52 air-crew calmly engaged in following "Go" procedure" (Tweg 6-7).

Tweg's comments illustrate one of the fundamental features of the technocratic community that Kubrick managed to convey in his film—the highly secretive privatized nature of the techno-scientific coterie who had completely alienated themselves from the concerns of the public domain. It is a setting where human emotions, values and the larger goal of peace itself has been abstracted through a deluded model of professionalization as is exhibited by the posters in Burpelson base that "Peace is our Profession" (*Dr.Strangelove*).

Although the ramifications of the plot-line operating within these three spaces are multiple, the basic premise of this film is deceptively simple: "A renegade U.S. Air Force General, Jack. D. Ripper, who orders his B-52 bombers to drop their nuclear weapons on the Soviet Union. This attack may set off the doomsday device that will kill all life on the surface of the earth" (Lindley). Since the first atomic bomb, the American techno-militaro- industrial complex had been constructed within nuclear discourse as a tightly knit perfectly functioning machine—whose probability of malfunctioning was nonexistent.

In fact the secure and controlled state of the American techno-militaro-industrial complex as opposed to minor nuclear powers had been one of the principal features of Sec. of Defense Robert McNamara's "No-Cities speech where he claimed:

> In short, then, limited nuclear capabilities, operating independently, are dangerous, expensive, prone to obsolescence, and lacking in credibility as a deterrent. Clearly, the United States nuclear contribution to the Alliance is neither obsolete nor dispensable.
> (*The Atomic Archive)*

Kubrick's movie dismantles the notions of infallibility that had been postulated through governmental rhetoric; in his movie a relatively minor official (in reference to nuclear policies) manages to activate Plan R an "emergency war plan where a lower echelon commander may order nuclear retaliation after a sneak attack if the normal chain of command is disrupted"(*Dr. Strangelove*). In the case of the movie no such sneak attack has actually taken place and it is rather a General who in the words of the American President in the movie "had got a little funny in the head" who launches an all out nuclear attack against the Soviet forces. In satirizing the officials and discourses connected with nuclear technology, Kubrick's characterization of Ripper highlights that for all the talk of strict strategic management, the only thing that was required for a global apocalypse to be initiated was for a single individual to go "a little funny in the head.". D. Ripper who initiates the nuclear attacks on the Soviets had been convinced that the post-coital fatigue which he had been experiencing was a sure result of the "fluoridation" plot initiated by the Communists that was destroying the purity of his "precious bodily fluids" and depriving him of his "essence" (*Dr.Strangelove*). Ripper's delusional fear regarding the "loss of essence" that catalyzes an all-out nuclear holocaust ending human civilization is in fact one of the most natural reactions in built into the human body, following intercourse.

However, the inability of a military official to recognize such a fundamental fact about the human body provides a telling reminder of the extent to which the nuclear community had abstracted human life through the nuclear bomb—they were now unable to recognize their own normal bodily processes. More importantly in view of the contemporary nuclear public discourse that was putting in its best efforts to abstract and disembody the nuclear, *Dr. Strangelove* warns us that the bomb functioning under the whims and fancies of a select group of privileged individuals was privy to human errors and mistakes. However, unlike the case of any other weapon in human history such a mistake could actually mean the end of civilization.

Pertinently, Kubrick's movie also initiates a trenchant critique of the phallocentric nature of the technocratic community, anticipating the work of scholars like Carol Cohn and Jane Caputi who have written at length on the gendered nature of nuclear discourse. Gendered linguistic tropes have been a predominant feature of nuclear rhetoric since the conceptualization of the bomb. As the physicist Brian Easlea notes in his book *Fathering the Bomb*, during the initial days of the Manhattan Project at Los Alamos when scientists struggled to build the bomb, they staked money on whether they would produce a failure or a success—in their lingo a "a girl or a boy." The enterprise was a success and the phallic bombs were subsequently named *Fat Man* and *Little Boy*, masculine representations of the gendered technology from which they had emerged. This masculinist bias of the technocratic sphere also percolated into the public domain such as the when National Baby Association reacted to this birth/explosion by naming Robert Oppenheimer, the leader of the Manhattan project as the "Father of the year". Incidentally Robert Oppenheimer still remains the paradigmatic father figure in an exclusive nuclear community that consists of men such as Edward Teller, "Father of the US H-bomb"; Glenn Seaborg one of the founding "Five fathers of plutonium"; Andrei Sakharov "Father of the Soviet H-bomb" and Admiral Hyman.B.Rickover, "Father of the American nuclear navy" (Cohn).

Such a phallocentric world becomes one of the core issues of critique in *Dr.Strangelove* through strategies such as the existence of only a singular female figure, Shirl (General Buck Turgidson's secretary) in the entire narrative of the film. Shirl's character portrayed by the British model Tracy Reed is *physically* shown only once throughout the entire film, when she appears dressed provocatively in a bikini in Buck Turgidson's bedroom in Washington, D.C. As she seductively smokes on a cigarette while receiving calls and relaying the information to her employer and lover General Turgidson, her inferior position in the technocratic hierarchy is clearly delineated. Once General Turgidson emerges, he decides to "mosey over to the War Room for a few minutes" when he meets with Shirl's sexual invitation to which he responds "You just start your countdown. I will be here before you can say *blastoff*" (my emphases; *Dr.Strangelove)*. The implications of such a comment are decisive as Turgidson one of the high ranked officials in the technocratic community conflatess himself with the nuclear bomb itself, and would arrive in due course with his phallic presence to provide the female body with orgasmic bliss.

As Laura Mulvey argues that within the world of film making the "idea of woman stands as linchpin to the system: it is her lack that produces the phallus as a symbolic presence" (198) a fact which finds resonance in the presence of Tracy Reed's character. Miss. Foreign Affairs is a stand-in object of visual pleasure in the only scene where there is the physical absence of a male character. Through this symbolic objectification of the female body Kubrick reflects the masculine ideology in the techno-industrial complex. Even in this short interlude it the absence of the male body that is preeminenced, through the commodified female body (wearing a bikini and smoking a phallic object), thereby indicating the puissance of the male body. In Freudian terms amongst the many possible pleasures being offered by cinema one of the primary ones is *scopophilia* or the "circumstances in which looking itself is a source of pleasure, just as,

in the reverse formation there is pleasure in being looked at"(Mulvey 201). Such a scopophilic activity is understood mainly as "the determining male gaze projects its fantasy onto the female figure, which is styled accordingly" ((Mulvey 201). This element of scopophilic pleasure becomes critical within the domain of Kubrick's film because the character of Miss. Foreign Affairs signifies not only the representation of the desires of her on-screen lover, but rather the attitude of the entire technocratic community that perceives women as masturbatory images or passive receptors of the phallus.

This fact is even more pronounced in the only other scene of the film where there is a feminine presence (albeit disembodied); when Major T.J. "King" Kong looks at the image of a *Playboy* centerfold. The model in the centerfold is in fact again "Miss Foreign Affairs" (Tracy Reeds) as she lies nude on her back with the January 1963 issue of *Foreign Affairs* – Vol. 41, No. 2, containing Henry Kissinger's suggestive article "Strains on the Alliance" – strategically draped across her behind" (Stillman 491). It is important to underline here Kissinger's role in the field of nuclear strategy as one of the first political figures, who had been involved in the textual abstraction of the bomb through his best-selling book *Nuclear Weapons and Foreign Policy* in 1957. Once Kissinger undertook the role of national security adviser under the Kennedy administration he had also been one of the strongest advocates of the "first strike policy" illustrating a potential disregard for the massive human death toll that would result from such a preemptive strike—mirroring the attitude of his filmic counterparts General Buck Turgidson and Dr.Strangelove .The use of Tracy Reed's image as a model in *Playboy* becomes highly suggestive here since beyond *Playboy*'s status as a glamour magazine, it also featured "writers of caliber such as Arthur.C. Clarke" talking about technological issues. Therefore such texts would be the ideal scopophilic object for the technocratic official—through incorporating

both technological knowhow and a woman's fetishized body within its pages. In this moment of cinematic brilliance as Major Kong peruses through *Playboy*[7] he becomes emblematic of the attitude of the missile complex who had abstracted both the female body and the nuclear bomb (Stillman 489).

Although there are indeed numerous other scenes in *Dr.*Strangelove where the male body is physically absent, there is no real lack of phallic signifiers in such moments. As a matter of fact the very first scene in the film portrays a B-52 bomber being refueled by a larger aircraft which extends its fuelling pipe into the chamber of the B-52, inaugurating the first of many scenes that see the replacement of physical male bodies by their technological phallic counterparts. For example the two nuclear bombs that are carried by Major "King" Kong into Russia are called "Dear John" and "Hi There." The term "Dear John" became apocryphally well known during World War II as an affectionate address used by a woman in a letter to her husband, informing her that she decided to move on with her life, implying that she had found another man. By naming the bomb "Dear John" Kubrick performs the dual task of portraying how such an form of address was perceived in martial circles, namely as a major form of emasculation for the male soldier while also critiquing the patriarchal attitude that failed to recognize women as anything more than an object of sexual fantasy Pertinently, the name of the second bomb "Hi There" points out the next step that would be taken by such an "emasculated" male soldier, an attempt to court new female companionship, using "pick-up phrases" such as

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[7] "The June 1962 issue of *P l a y b o y* , which is read by Maj. Kong in the B -52 cockpit, includes a Swiftian article from author Arthur C. Clarke; a profile of a playmate who is an avid fan of the James Bond series; a discussion between President Kennedy's pal Mort Sahl and Edward Bernays, the propagator of water fluoridation; and a cartoon on trysts by Jules Feiffer, who was briefly consulted on the script. The beach bunny pin-ups on the inside of the B-52 safe door are taken from page 58 of the pictorial which ends, 'so, toast the brief bikini - it was once just a nothing atoll'." (Stillman 493)

"Hi There"—effectively pointing out the aggressive male figure approaching the objectified passive female and re-establishing the macho masculinist stereotype. Interestingly such a fetishization of the female body occurs even through the survival kit that is handed over to the air force personnel in the B-52 bombers that includes "one issue of prophylactics; three lipsticks; three pair of nylon stockings" (*Dr.Strangelove)*, items that may be used to seduce women and essentially use them as receptors of the hyper masculine anxiety existing in these phallocentric technocratic circles.

In her seminal article on nuclear discourse *Sex and Death in the Rational World of Defense Intellectuals*, Carol Cohn highlights this element of hyper masculine anxiety:

> Throughout my time in the world of (nuclear) strategic analysis, it was hard not to notice the ubiquitous weight of gender, both in social relations and in the language itself; it is an almost entirely male world (with the exception of the secretaries) and the language contains many rather arresting metaphors (688).

As Cohn highlights, this constant state or rather the desirable state of hypermasculinity that seemed to be a necessary cultural capital within the technocratic complex allows discussions regarding nuclear weapons, nuclear war and nuclear strategy to carry on "without any sense of horror or, urgency or moral outrage—in fact there seems to be no graphic reality behind the words…" (690). From Cohn's analysis it becomes absolutely clear as to why hypermasculinity is needed within this technocratic complex—since the abstraction of the bomb *cannot be performed without hypermasculinity*.

It is therefore not all surprising that Kubrick chooses to reiterate this element of hypermasculinity and the related anxiety throughout his film, as recognizing this facet of the technocratic complex would lead to the recognition of the related aspect for the audience—

namely the abstraction of the bomb. In creating this form of nuclear consciousness and a resultant nucliteracy Kubrick introduces the theme of hypermasculine anxiety as an underlying as well as dominant thread within all the figures of authority in his film.

Merkin Muffley, the American President in this movie[8] and supposed to be the central authority figure is often domineered upon by his subordinates who are the anti-thesis to his "decent, sensible, likable and humane" demeanour (Burgess 9). In one of his interactions with General Buck Turgidson when Muffley asks him how the devolution of authority (that had led to the Ripper's order of nuclear attack) was possible, he is immediately rebuked and chastised by Turgidson with the comment: "You approved it sir. You must remember. Surely you must recall, sir…the idea for Plan R to be a sort of retaliatory safeguard. " (*Dr.Strangelove)*. Several other instances in the movie highlight Muffley's character as a "liberal, conciliatory, 'man of reason'" (Tweg 7) who tries to reason with the Russian premier about this sudden catastrophe and even allows the Russian Ambassador access into the War Room—a decision that is hotly contested by his military officers. Muffley's inability to negotiate with his military generals does not seem to arise from his incompetence but rather his very status as a reasonable man that seems to be in opposition to the hypermasculine cultural capital needed to function within the technocratic complex.

Since within this world of *Dr.Strangelove*, paradoxically hypermasculinity is the only measure and indicator of "masculinity", Merkin Muffley's status as a non-hypermasculine character in fact feminizes him, making him the obvious anti-thesis to the hypermasculine technocratic figures. His effeminate status is indicated through his name "Merkin Muffley", which beyond the obvious shortening of "American" is a crude sexual reference to the genital wig used by female prostitutes to cover their "muff" (a euphesim for female genitalia).

[8] It is apocryphally claimed that Merkin Muffley was modelled after the democratic leader Adlai Stevenson due to his passive nature. (Stillman; Burgess)

However, in reference to *Dr.Strangelove* the connotation of "Merkin" that becomes important is the fact that male actors also used them in playing female roles, so that they could expose themselves on the stage. As the public face of the technocratic complex the American President Merkin Muffley therefore becomes the "wig" that covers up the phallocentric nature of the nuclear community—a benign buffer for the hypermasculine and self-destructive nuclear community.

Vitally, the actual figure of authority in the movie is the eponymously named scientist who was apparently modeled on a variety of individuals including Edward Teller, Herman Kahn and Henry Kissinger amongst others (Stillman). Interestingly the character of Dr.Strangelove strapped into a wheel chair for a major portion of the movie "mocks not only militarism, Edward Teller and the Pentagon, but all pretensions on the part of men (all of us) who have delivered their environment into the hands of totally amoral technological science" (Burgess 10). Dr.Strangelove's constant attachment to his wheelchair, his artificial hand that constantly moves in Nazi salute and his celebration of the concept of MAD (mutually assured destruction) indicate that not only is he the embodiment of the techno-military complex, but he is in fact the representation of the ultimate destructive machine—the bomb.

In this inverted world of the technocratic community where men have "stopped worrying, i.e. thinking and feeling and learned to love the bomb, i.e. The Machine" (Burgess 10), Dr.Strangelove's physical impairments are not a hindrance to his becoming the alpha-masculine figure. Rather it his cyborg status where he is literally at one with the machine which is in fact the reason behind him being considered the naturalized leader of the nuclear community and the purported mast figure in a post- nuclear holocaust world. As Terry Southern one of the scriptwriters for *Dr.Strangelove* asserts that the "movie was an attempt to blast smugness…over

a fool-proof system which may not be" (qtd. in Burgess 10). In doing so Kubrick indicated that it was not the infallible "Doomsday Machine" of the Russians that ultimately destroys human civilization in the movie which the is the actual catastrophe—but it was rather the human creators of such machines who had lost all morality and abstracted human life that needed to be held accountable.

Nucliteracy and the Initiation of Nuclear Counterpublics

> By now, the bomb has almost no reality and has become a complete abstraction, represented by a few newsreel shots of mushroom clouds…As time goes on, the danger increases, I believe, because the thing becomes more and more remote in people's minds. (Kubrick qtd. in Agel 59)

From the initiation of the nuclear into the public imagination through the events of Hiroshima and Nagasaki to the cessation of above ground testing, the nuclear bomb in the public sphere had achieved a full circle, at least psychologically. While Truman's initial speech after the Japanese bombings had exalted the ability of the bomb to make "a profound psychological impression on as many inhabitants as possible" (Garrison) it was now increasingly the effort of the government to abstract its catastrophic potential through a "a few newsreel shots of mushroom clouds." As Constandina Titus remarks in her article *The Mushroom Cloud as Kitsch*, "Bursting onto the scene in 1945, the mushroom cloud was immediately recognized as a symbol of U.S. Power. …the government quickly promoted it to instill awe and fear in the citizenry and thereby build support for Cold war defense policies. Recently, after virtually disappearing…when testing moved underground, the mushroom cloud reemerged as a nostalgic

icon" (102). While Titus' claims about current images of the mushroom cloud as nostalgic kitsch are debatable, she does underscore an important point about the period following the move to underground nuclear testing—abstraction of the most potent nuclear symbol.

In view of Titus' remark it becomes vital to emphasize the role played by cultural texts such as *Dr.Strangelove,* produced in the immediate period after nuclear testing moved underground. They inaugurated a nuclear counterpublic space thereby promoting nucliteracy through re- embodying the nuclear bomb and its devastating effects. Before discussing how nucliteracy led to the production of a counterpublic space, it is necessary to briefly mention a few notable texts fthat were being published and filmed in this period, with the singular aim of promoting a nuclear consciousness amongst the general audience. *Fail Safe* (1964) released in the same year and directed by Sidney Lumet who adapted it from a novel by E.Burdick and H.Wheeler functioned on a similar premise as Kubrick's movie, detailing the inherent fallibility of the techno-military complex. In Lumet's movie that has a serious tone unlike *Dr.Strangelove*, a computer malfunctioning leads six US aircrafts to cross their fail-safe points and bomb Moscow. With Moscow destroyed the US president is forced to enter into a bargain with the Russian premier and orders his trusted aide General Black to nuke New York City with Empire State Building as ground zero. The following year saw the production of *The War Game* (1965) a BBC commissioned documentary-style production that visualizes the terrifying scenario of a nuclear bomb attack on Southern England. The production
which was later banned by the BBC made an "overall presentation of the social collapse at every level despite 'contingency' planning by the authorities" (Tweg 16).

Critically, Michael Warner in conceptualizing *counterpublics* argues that such bodies are "defined by their tension with the larger public…being structured by alternative dispositions or

protocols, making different assumptions about what can be said or what goes without saying." (56) Such an assertion maps perfectly onto the reactions that the above mentioned texts elicited in the larger public sphere: while *Dr.Strangelove* was regarded as "just a zany novelty flick which did not reflect the views of the Corporation (Columbia Pictures) in any way" (Southern 80), Peter Watkins' *The War Game* was banned by the BBC, ironically the same body that had commissioned its production. Interestingly, in both cases Kubrick and Watkins faced opposition from the technocratic community as well from their very sites of cultural production indicating that were being "marked off from persons or citizens in general", delineating them and their productions as an aberration within the larger civic body—thereby automatically providing such documents with a subcultural counterpublic space The radical content in these films connotated the creation of a counterpublic discursive space not only because they were challenging the notions regarding the nuclear in the larger public domain but also creating a "horizon of opinion and exchange" that would be utilized by similar cultural documents in the future.

Productions from Kubrick, Lumet, Watkins initiated the rise of a discursive space that had re-embodied and deabstracted the destructive potential of the bomb, but more importantly created counterpublics where the constituents "could engage in communicative processes beyond the supervision of dominant groups" (Asen and Brouwer 7). Paving the way for the rise and development of determined anti-nuclear activists such as Helen Caldicott and organizations such as the Nuclear Age Peace Foundation, films such as *Dr.Strangelove* highlighted that the "rational" strategies of the techno-military complex were not only untenable but in fact anti-humanist. In the words of Gertrude Stein nuclear counterpublics reminded the public domain that the atomic bomb would surely "destroy a lot and kill a lot, but it's the living that are interesting not the way of killing them" (Stein para1).

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