

**MILITARIZATION:
Forging an Art-Military-Industrial Complex to ensure real results
and
wide-ranging effects of art on the wider world**

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First presented at *Is Thought Action?*, a conference exploring tensions between academic theory and praxis organized by the Netherlands Institute for Cultural Analysis and the Amsterdam School for Cultural Analysis, this paper proposes the militarization of the arts by forging an Art-Military-Industrial Complex. What better way to measure results and effects on the wider world than to engage with the singular politico-industrial poly-entity which has constantly and consistently affected so many aspects of our lives, beyond the scope of our awareness? Looking to historical and contemporary influences of militarism and militarization on multiple aspects of our lives, we also consider existing relations between art and militarization. Taking as a reference point the Military-Academic Complex in the United States, we can re-forge the so-called "iron triangle" and funding mechanism of military agencies, science industries, and research universities by inserting the art-academic industry as a primary vertex in the equation. In doing so we can capitalize on the commonality of warfare as one of the most universally understood modes of communicating to promote the role of the arts in an inter-disciplinary, inter-institutional, inter-industrial dialogue.

*"Let your plans be dark and impenetrable as night,
and when you move, fall like a thunderbolt."
–Sun Tzu, *The Art of War**

Ladies and Gentleman, distinguished guests, and fellow citizens, as we gather at this conference around the question "Is Thought Action," we find ourselves in a state of crisis, yet the course of action before us has never been more clear.

We are brought together today by a collective unease that we in the arts and humanities feel about our relation to the wider world. This is certainly not something new. Our connection to the wider world, the effects we have or can have, and the results of our research and work – in both quantitative and qualitative terms – are not easily evaluated, nor are they immediately identifiable.

We are at risk. Though we may be able to value and valorize our work on our own terms, the wider world does not readily make a place for those who are not perceived to be actively contributing to it. Our reach, it seems, is at risk of remaining within the supposed containment of academia, even as we continue to search for ways through which our inquiries and activities might connect to other disciplines or have practical outcomes.

We have been called to ask ourselves how or if the dialogues we engage in might expand or be translated to include those outside of them, or how we might participate in larger conversations outside of our own. While our positions as creative practitioners – individually and collectively – shift and fluctuate in this changing world which is itself so full of uncertainties, our detractors would have us believe that the best we *can* do is to continue to search, suppose, and speculate.

I, however, am not satisfied to accept the threat that the impact of our practices must be delegated to mere discussion and deliberation. Much to the opposite, I have come to the conclusion that there is in fact a way in which we can ensure real results and wide-ranging effects of our practices, a way in which each of our thoughts ultimately *manifests* action.

It has become clear that our next and best course of action is the militarization of art. We will forge an Art-Military-Industrial Complex to ensure real results and wide-ranging effects of art on the wider world. Already there are supporters mobilizing to implement this plan. We are happy that you join us today, and we appreciate your participation and your confidence in what we will accomplish together in the time to come.

There is, as far as I can see, no more efficient and effective way to measure results and effects on the wider world than to engage with the singular politico-industrial poly-entity which has constantly and consistently affected so many aspects of our lives, beyond the scope of our awareness.

The effects of military research, militancy, militarism, and militarization are expansive and all-inclusive. They emerge in and merge with our daily lives in unexpected and unimaginable ways. To join forces with the military is to join forces with one of the most *forceful* forces moving our world. To do so will guarantee not only that we solidify our own security in these undoubtedly unstable times, but will

also guarantee that our research, work, and practices will, as with all militarized entities, have consequential results in activities and industries that are far removed from our own active imaginations.

Today, I present to you not only the roadmap that lies before us, but also the path of history that lies behind us, the path that provides us with the grounds for the advancing militarization of art. Along this trajectory, we will survey a small but paradigmatic cross section of the often-unseen influences of warfare and the military. We will look towards the land, sea, and air, and the way militarization has infiltrated where we live, what we consume, and even the very air we breathe.

Following this exemplary lineage, we will see that the active and robust Military-Industrial and Military-Academic Complexes in the United States provide prototypical models for the potentials, possibilities, and practicalities of our ongoing implementation of an Art-Military-Industrial Complex.

Together, we can re-forge the archetypal Iron Triangle and funding mechanism of military agencies, science industries, and research universities by inserting the art-academic industry as a primary vertex in the equation. While the United States Military-Industrial Complex provides the operational basis for our Art-Military-Industrial Complex, the United States is not the only body well-versed in and well-served by the expressive potential of militarism. Warfare is one of the most, if not *the* most commonly understood modes of communicating. Open combat and covert ops alike convincingly convey the messages of their militaries. Certainly, the consequences of our communication and the extent of our effects will only be broadened and bolstered through militarization.

Together, we can realize this actuality.

BEYOND THE BATTLESPACE

The Reach of Military Research

It is no secret that military research and warfare have significant effects on our everyday lives. Militarism effectively has us surrounded, beyond repercussions most recognizable to us such as shifts in industrial production and women joining the workforce in the

beginning of the 20th century; the development of the omnipresent, omniscient Internet; and current flight and travel regulations.

Even now, active military research efforts by entities such as the Defense Advanced Research Projects Agency and the Information Innovation Office in the United States are developing technologies that will have practical applications in civilian life, including advanced space-based satellite Global Positioning Systems; red blood cell machines that will automate the mass production of universal donor type cells; Advanced Structural Carbon Fiber; and a titanium mining and extraction process that will decrease the price of titanium significantly and consequently make this high-strength, non-corrosive material available for civilian and consumer applications.¹

Today, however, I would like to turn our attention to what may be some of the less perceptible but are certainly all-pervasive effects of military research and warfare, effects which are not necessarily the primary aims of military research, but effects which, even as I speak, continue to be brought to us by land, sea, and air.

Land and Architecture

Land has historically been at the nucleus of a great deal of military activity. Battles for territorial possession have been fought throughout time and continue to be the source of much of the strife and struggle on international battlefronts today. Yet, beyond the battles over land, beyond the crossing, re-crossing, destruction, and re-drawing of borders, our lands hold an even more persistent history of militarization, and of the repercussions of warfare.

We can look to the south, at the paradigmatic subjugation of road networks, urban planning, and thus spatial experience in Paris during the reign of Emperor Napoleon III in the mid-19th century. The New Paris, as designed and planned by Baron of the Empire Georges Haussmann was redesigned and built with military considerations at

¹ Walter Hickey, "15 Advanced Military Research Projects That Will Change Your Life," *Business Insider*, 16 July 2012, accessed 20 November 2013, available: <<http://www.businessinsider.com/15-advanced-military-research-projects-that-will-change-your-life-2012-7>>.

heart.² Haussmann's plan for Paris implemented the destruction of slums in the city center, newly built and positioned barracks that "command[ed] all strategic communication," and, the establishment of a new radial network of major highways connected by a circular system of roads.³ These changes built Paris as we know it today, and the architecture Haussmann fostered, including "wide and sudden perspective, placing public buildings boldly in the angles of squares, or siting them so as to centralize vision along the sweep of broad avenues and crossing places," had wide-ranging and far-reaching influences on the urban planning and development of other major European cities.⁴

In more current times, militaries often have control over building materials; for instance, in Egypt as of 2011, the military ran 10% of the economy, and military-backed companies produced cement and owned significant amounts of "Egypt's most precious commodity, land."⁵ With such authority and control, militaries can indeed shape the way cities and their architecture form around the people who live in them.

Even while architectural practice and the construction of buildings might be removed from actual military action and warfare, the spaces which we inhabit and which shape how we move are not immune to the effects of militarism. Built into the buildings, roads, and cities around us is the commanding influence of military planning. With an Art-Military-Industrial Complex, we, too, can infiltrate cities and the built environment.

Water and Agriculture

I would like to turn our attention now to another aspect of the land that military research infiltrates, one which is tied to the sustenance on which we depend, and one which is also tied to water. Control over water sources, maritime territorial governance, ports, and trade routes have been historic sources of conflict between nations and peoples.

² Brian Chapman, "Baron Haussmann and the Planning of Paris," *The Town Planning Review*, Vol. 24, No. 3 (Oct., 1953), pp. 177-102.

³ *Ibid.*, pp. 182-184.

⁴ *Ibid.*, p. 187.

⁵ "Khaki capitalism," *The Economist*, 3rd December 2011, accessed: 20 November 2013, available: <<http://www.economist.com/node/21540985>>.

Beyond the significance of such battles, which often leave populations deprived of water sources and other resources, results of military research are apparent in agriculture, which is intricately tied to both land and water, and the product of which is ultimately internalized into our bodies, often far removed from where these products are originally cultivated.

One key factor in the agriculture industry is its connection to and reliance on the insecticide industry, which is itself a by-product of military research into chemical warfare during World War II.⁶ For instance, the discovery of “organic esters of phosphoric acid” by a German chemist in the 1930s developed both insecticides as well as nerve gases.⁷ Another highly toxic pesticide chemical is dichloro-diphenyl-trichloro-ethane, or DDT, which was first used in “the wartime dusting of many thousands of soldiers, refugees, and prisoners, to combat lice.”⁸ Although DDT was first synthesized by a German chemist in 1874, it was not used as a pesticide until 1939, at which point, it was put into wide use by farmers. The toxicity of DDT and the process of its transference from one organism to the next, which results in increasingly high concentrations of the chemical, resulted in the ban of the use of DDT for agricultural purposes in many countries. Yet, even where DDT is not widely used, it is still highly present through its ability to travel through the atmosphere and its accumulation and continued persistence through transference between organisms over time.

More recently, the growing field of precision agriculture has been advanced by military research, through the adaption of drones, or unmanned aerial vehicles. These UAV’s detect changes in water content, plant health, growth patterns, and pesticide dispersal. The US Federal Aviation Administration has been issuing “special certifications for universities and other public institutions to test the integration of UAVs into national airspace.”^{9,10} Thus, what are the basis

⁶ Beatriz Colomina, “The Lawn at War: 1941-1961,” *Domesticity at War*, Actar, 2007, p.140.

⁷ *Ibid*, p. 140.

⁸ *Ibid.*, p. 15.

⁹ Emma Green, “Drones Might be the Future of Food,” *The Atlantic*, 3 October 2013, accessed 20 November 2013, available: <http://www.theatlantic.com/events/archive/2013/10/drones-might-be-the-future-of-food/280223/>.

¹⁰ Military Technology Adapted for Agriculture Industry to be showcased at 2012 Farm Science Review,” Ohio State University Farm Science Review, 2012, accessed 20 November 2013,

of stealth military strikes are now very practically applied to managing the cultivation of agricultural crops.

Agricultural products that are widely dispersed and consumed across the globe all carry with them some degree of military influence. This influence is in most cases not visible to the naked eye and not immediately identifiable. Yet the products which carry this influence are very directly consumed into and metabolized by our bodies. Their presence in our lives is tangible, corporeal, and substantial. With the implementation of an Art-Military-Industrial Complex, we, too, can infiltrate the bodily experiences of those around us.

Air and the Atmosphere

The invisible pervasiveness of militarization has also found its way into the atmosphere, into the very air we breathe, through effects on the weather and our experience of the weather. Research into meteorology was perhaps one of the first notable instances of military funding for scientific research, formally beginning after World War II.¹¹ These research efforts and the military's control over them had lasting impacts into our knowledge of weather, and they led to further research into weather and environmental modification techniques.

In 1967, John von Neumann developed a technique for inducing rainfall through cloud-seeding, in which clouds were showered with silver iodide to induce condensation, followed by precipitation and rainfall. This research was implemented during the Vietnam War in an operation known as Project Popeye, in which the U.S. military carried out a "secret mission to seed the tops of monsoon clouds and trigger phenomenal downpours that would wash away the Ho Chi Minh Trail used for ferrying supplies."¹² Today, although there is a United Nations ban on the use of weather modification as a warfare tactic, countries continue to research the technologies and potentials of

available: <<http://fsr.osu.edu/media/news/archives/2012/military-technology-adapted-for-agriculture-industry-to-be-showcased-at-2012-farm-science-review>>.

¹¹ Kristine C. Harper, "Research from the Boundary Layer: Civilian Leadership, Military Funding and the Development of Numerical Weather Prediction (1946-55)," *Social Studies of Science*, Vol. 33, No. 5, Earth Sciences in the Cold War (Oct 2003), pp. 667-696.

¹² Paul Simons, "Controlling the weather," *The Guardian* 24 September 2001, accessed 20 November 2013, available: <<http://www.theguardian.com/environment/2001/sep/24/weather.climatechange>>.

weather and environmental modification through innovative research initiatives such as the U.S.'s High Frequency Active Auroral Research Program, which activates areas of the ionosphere for communications efforts, and China's Weather Modification Office based in Beijing, which employs 50,000 people nationwide to make both incremental and immediate changes to the weather in China. The weather, atmosphere, and climate are not isolated and these efforts have repercussions that are felt far beyond the geographical points where they are initially implemented.^{13, 14}

Militarization and military research have long-lasting and wide-reaching effects on aspects of our lives which are not necessarily immediately perceivable. Even the air we breathe and the atmosphere around us is imbued with the pervasive force of militarism. I can think of few more potent ways of infiltrating people's lived experiences than through the invisible air which surrounds us and which is essential to life. With an Art-Military-Industrial Complex, we can actualize this possibility.

As we have seen exemplified in the aforementioned examples, the effects of militarism and military research are brought to bear on our everyday lives by land, sea and air. We have before us the opportunity to strengthen the force of our practices by joining forces with the impressive effectiveness of militarization, and thereby ensure the dissemination of our work across the globe as well as our consequent infiltration into everyday lived experiences – both internal and external – of those around us. Aligned with militarism, we can thus propagate wide-ranging effects and real results of our work and research on the wider world.

REFORGING THE IRON TRIANGLE An Art-Military-Industrial Complex

¹³ Jonathan Watts, "Cities fall out over cloud," *The Guardian* 15 July 2004, accessed 20 November 2013, available: <<http://www.theguardian.com/environment/2004/jul/15/china.weather?guni=Article:in%20body%20link>>.

¹⁴ Marina Hyde, "China takes battle to the heavens in search of the sun," *The Guardian* 8 August 2008, accessed 20 November 2013, available: <<http://www.theguardian.com/sport/2008/aug/08/olympics20081?guni=Article:in%20body%20link>>.

I am pleased and honored to bring this shifting paradigm to you, a group of minds whom, over the past two days, I have seen is of a like-minded order of thinking. It is only appropriate that we have been gathering together into what Winston Churchill once so memorably termed “academic groves” in his speech given at Harvard University in 1943. Such gatherings are places, as Churchill said, “where knowledge is garnered, where learning is stimulated, where virtues are inculcated and thought encouraged.”¹⁵

It is in such “academic groves,” in universities, research institutes, and academic conferences, that the military-academic-industrial complex thrives. The ongoing militarization of research universities, knowledge, and information, has been the result of “vast sums of research money now given to shape the curricula, programs, and departments” in educational institutions.¹⁶

What we know as the Iron Triangle is traditionally composed of government officials, legislators, and military industrial firms and institutions; or, more specifically “prime contractors, subcontractors, consultants, universities, and skilled workers.”¹⁷ It is through these relationships that “military power produces identities, goods, institutions, knowledge, modes of communication, and affective investments – in short, it bears down on all aspects of social life and the social order.”¹⁸

It is time we re-forge the Iron Triangle, and form an Art-Military-Industrial Complex to heighten the influence of art as a primary player in the global circulation and exchange of knowledge, capital, and goods. We can work together to draw the art-academy into international and governmental investment patterns. Once we establish our working relationship with militaries, we will also be able to participate in the funding mechanisms that are already supporting

¹⁵ Winston Churchill, “The Price of Greatness,” Speech given at Harvard University on receipt of Honorary Degree,” published in *Finest Hour* 80, Third Quarter 1993.

¹⁶ Henry A. Giroux, “The Politics of Higher Education and the Militarized Academy After 9/11,” *Alif: Journal of Comparative Poetics*, No. 29, the University and Its Discontents: Egyptian and Global Perspectives (2009), p. 109.

¹⁷ Rachel N. Weber, “Military-Industrial Complex,” *Encyclopaedia Britannica*, 2013, accessed 20 November 2013, available: <<http://www.britannica.com/ebchecked/topic/382349/military-industrial-complex>>.

¹⁸ Giroux, p. 107.

researchers through grants and employment opportunities in other fields. For instance, in the United States, 54% of the federal budget is spent on military expenditures. Much of this budget is allocated to contractors and sub-contractors who conduct research for military purposes.

Art has historically been used for the glorification of battle, warfare, and the military.¹⁹ In more recent history, during World War I, artists were commissioned by the British Royal Navy and the United States Navy to work as *camofleurs*, applying camouflage to ships to decrease the rate of both naval and merchant ship destruction by the German Navy. An artist named Norman Wilkinson developed the technique of “dazzle painting” which, through erratic patterns on the exteriors of ships, made the ships highly visible, serving to “confuse, or ‘dazzle,’ the submarine gunner[s] so that [they] could not be sure about the target’s course, size, speed or distance.”²⁰ The British government eventually ordered all naval and merchant ships to be painted with dazzle patterns, and employed many artists to design and paint them.

The U.S. Navy also hired Wilkinson to help implement dazzle camouflage on ships, after researching other types of ship camouflage developed by artists, including the “Brush System” based on countershading by Abbot Thayer and Gerome Brush; the “Mackay System,” a “low-visibility pointillist plan” by William Andrew Mackay, and the Warner System by Everett Warner. With the eventually implemented “dazzle” painting technique, the U.S. reported a less than 1% loss and damage level for ships that were camouflaged with dazzle.²¹

We can also look toward a more recent cooption of artists in the end of the 20th century. The Abstract Expressionist movement and its artists were utilized by the U.S. government during the Cold War as a “propaganda weapon in demonstrating the virtues of ‘freedom of expression’ in an ‘open and free society,’” in contrast and opposition to

¹⁹ Boris Groys, “The Fate of Art in the Age of Terror,” *Concerning War: A Critical Reader in Contemporary Art*, eds. Marria Hlavajova and Jill Winder, Utrecht: BAK, basis voor actuele kunst, 2010, pp. 91-107.

²⁰ Roy R. Behrens, “The Role of Artists in Ship Camouflage During World War I,” *Leonardo*, Vol. 32, No. 1 (1999), pp. 53-59.

²¹ *Ibid.*, p. 58.

“the regimented, traditional, and narrow nature of ‘socialist realism.’”²² In particular, the CIA-sponsored and later CIA-controlled Congress for Cultural Freedom, which gathered artists and intellectuals in Europe from 1950 to 1967, was seen as the intellectual equivalent of the Marshall Plan and served to extend the influence of free thinking and American intellectualism.²³

Highly influenced by and connected to the Rockefeller family, the Museum of Modern Art in New York took a large role in shaping the contemporary art landscape and the international representation of American contemporary art and culture. The museum was instrumental in exporting abstract expressionism and American art through exhibitions. The Museum also took responsibility for the U.S. pavilion in the Venice Biennale from 1954 to 1962, which was the only case of a privately owned national pavilion up to that point.²⁴

The boards of trustees of such institutions as the Museum of Modern Art were and continue to be heavily influenced and controlled by rich donors who are the “giants of industry and finance.”²⁵ Through the militarization of art, we can now extend this base of patronage and support to include military agencies. With the newly forged Art-Military-Industrial Complex, we will preempt the appropriation of artists and co-opt the cooption which has occurred before, by becoming a major force in deciding how these relations are developed and to what ends our work and research will be applied in military research.

We can see that structures that are instrumentalized in militarization construct “particular modes of address, modes of identification, affective investments, and social relations” which form part of a “popular imaginary” that “both deploys power and is influenced by power.”²⁶ Already militarism is making use of “new media and the new modes of political literary and cultural production they employ” to create a “vast apparatus of public pedagogy – extending from radio and screen culture to the internet and print

²² Giles Scott-Smith, “A Radical Democratic Political Offensive”: Melvin J Lasky, Der Monat, and the Congress for Cultural Freedom,” *Journal of Contemporary History*, Vol. 35, No. 3 (Apr 2000), pp. 263-280.

²³ *Ibid.*, 278.

²⁴ *Ibid.*, p. 85.

²⁵ *Ibid.*, p. 82.

²⁶ Giroux, p. 117.

culture.”²⁷ As cultural shapers and producers, we have the capacity to extend this operational tool base and thus militarism’s influence. In doing so, we will become instrumental in the development of militarized discourse and cultural production.

We cannot afford to sell ourselves short. We must work together and strive for excellence as well as sustaining and profiting from our practices. Through the establishment of an Art-Military-Industrial Complex, a new era of advancement and the valorization our practices may be inaugurated.

With an Art-Military-Industrial Complex, flows of influence, power, funding, and research move from industry, to military agencies, to art, and back to industry; or from industry to art to the military to industry back to art; or from art to the military to industry back to art. These forces will be able to move in different directions with different flows, and will precipitate the global circulation of *our* knowledge, goods, and cultural capital.

With the right initiative, and through the creation of an Art-Military-Industrial Complex, we can move beyond the “groves” of knowledge, learning, and creativity, into a global space where together, we can form transnational alliances. Through our collective efforts, the military’s research priorities will shift from the technocentric to include the aestheticentric or culturocentric. With the establishment of an Art-Military-Industrial Complex, a new era of advancement and the valorization of our practices will be inaugurated.

UNIVERSAL COMMUNICATION The Language of Warfare

We can only understand the full force of the impact of the militarization of art once we consider the communicative potentials of militarization and warfare. The flows and movement of art, military, and industry along with our knowledge, goods, and capital will ultimately circulate globally and transnationally. Through our alliance with the powerful force of militarism, we will see the effects of our research and work

²⁷ Giroux, p. 118.

manifested in distant fields and territories. They will continue to resonate around and across the globe long after their initial formation.

Esperanto aside, warfare is the most universally understood mode of communicating. And like Esperanto, which brings diverse peoples together under a common language, militarism also brings diverse peoples together under the extremely expressive efficacy and comprehensive communicative comprehensibility of warfare and military action. We must capitalize on this commonality to promote inter-disciplinary, inter-institutional, inter-industrial dialogue.

With the universal and common language of militarism and warfare, we will be able to instrumentalize our practices, form an allied relationship to militarism, and pervasively infiltrate the lives of those around us, by land, sea, and air.

Together, we can forge a collective, global Art-Military-Industrial Complex. Together, we can silence those who would ask us to substantiate the relation of our practices to the wider world, or who would question the role of the arts in society. Together, we can unite against the threat of this common threat. Together, we can militarize art.

We must not yield; we must not rest; and we must not relent.²⁸ In these, our collective efforts, “we will not tire; we will not falter; and we will not fail.”²⁹

²⁸ George W. Bush, Address to the Joint Session of the 107th Congress, United States Capitol, Washington D.C., 20 September 2001, Selected Speeches of President George W. Bush, accessed 20 November 2013, available: <http://georgewbush-whitehouse.archives.gov/infocus/bushrecord/documents/Selected_Speeches_George_W_Bush.pdf>.

²⁹ *Ibid.*