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Super-machines: An operated physical presence exploiting spatial dynamics of control

Man's endeavor towards the philosophical understanding of machine and body have created *super-machines*, operated by men, which have created a hegemonized concept of spatial command, spatial dominance, and spatial dynamics — all emphasizing a strength by physical prowess and weaponry. Its inventive fruition is a creation of man's curiosity to react and respond towards safety and defense. Defense technology is a significant future, in which plays an important factor in accelerated *transthesis* defined as "[A]ritifical body parts that extend or transend basic biological functions." (Ansari, 120). due to achieving an offset strategy of always pioneering technology that can permeate and create *super-machines*. These *super-machines* create advantages to compensate for the flaws of the biologically naked human body and are solved using invention as means to achieve omnipotent strength. This omnipotent strength cannot be contest by a mere biological body. The importance of space within the discourse of the human body and its new mediums of invention creates new undefined typology of spaces from these *super-machines* in ways that the strategic hegemonic agenda, though, still rests within the human body. It begs to ask the question, what is a tool without the knowledge to use it or what means is it trying to achieve? The *super-machines* are the medium for future infrastructures that both attacks and defends at the physical level — These are the panoptic spatial dominator controlled by *human prowess* and *technological dominance.* The super-machine does not imitate life, it divorces life and it destroys life.

The super-machine is not an unprecedented creation of itself. Instead, it is created by us via tools, apparatuses, and machines that produces machines. Our productions are logarithmic in ways that all technological advancement is the sum of all previous advancement: such as precision measurement, Archimedes drill, kinematics, work-energy, thermodynamics, et. Al. The specificity of this essay is the analysis of an ontological object that transitioned towards machines that would slowly progress into *super-machines*. But the human body comes first in this hierarchical development of delegated tasks.

The human body is limited to its own biology — fatigue and muscle limitations. The "Economy of Work"[1] by Anson Rabinbach have analyzed Etienne-Jules Marey's work as a purpose to

[1] Anson Rabinbach, "Transcendental Materialism: The Primacy of Arbeitskraft (Labor Power)" and "The Political Economy of Labor Power," in "The Human Motor: Energy, Fatigue, and the Origins of Modernity, University of California Press: 1992, 45-83.

understand laws of motion by thermodynamics. "As we regulate the use of machines in order to obtain a useful result with the leaser exertion of work, so man can regulate his movements … with the least fatigue possible." (Rabinbach, 116) address to "*Association Francaise pour l'Avancement des Sciences*" in 1886 by Marey. This is a pivotal analysis due to its transitory effect of understanding ergonomics. Ergonomics creates the important distinctive relation between body and machine. Body and machine working together in unison to be as "efficient" as possible. Chronophotography, a photographic series of movement using a shutter gun, initially used primarily to photograph the cosmos. Marey used it intensively to study biological movements instead. It made the understanding of fatigue and human limitations possible. "An economy of energy […]" (Rabinbach, 116). Efficiency and economy are now caught between the discourses of body and science.

Body and Science now seeps within the economic territory of production. Within the context of Industrial revolution of mid to late 19th century, machine and labor have contributed greatly in the means of production. One of this efficiency studies have been the inventive methodology of assembly lines. Oliver Evans introduced grain production system by a continuous milling process that did not require the human hand.[2] This was within the years 1784 to 1785. The production line continually running, like the Archimedes drill. "The assembly line is one of mechanization's most effective tools. […] Its ultimate goal is to mold the manufacture into a single tool wherein all phases of production, all the machines, become one great unit. (Gideon, 77). The assembly line's tangible achievement of saving labor time and exponentially raising production have created mass-production. Furthering the notion of technological advancement by using precedented technologies.

From the inventive methodology of automatic assembly by Oliver Evan, have transitioned towards human assembly line in 1804. "A human assembly line was established in an English naval arsenal to speed up the production of biscuits." (Gideon, 87), its significance contributed for economic statistics: "A work of five bakers is to turn out seventy ships' biscuits a minute: twelve ovens; 'each will furnish daily bread for 2040 men.'" (Gideon, 88). Its quantitative facts that interests capitalistic tendencies. A group of humans can achieve a common goal — to produce.

Fast-forward a century later, within the context of World War I of July 28, 1914 — all from the sequential event starting from the assassination of Archduke Franz Ferdinand of Austria in June 28,

[2] Sigfried Giedion, "Assembly Line and the Scientific Management" in *Mechanization Takes Command: A Contribution to Anonymous History*, p 79. (Paraphrased)

1914.[3] Captain Levavasseur of the French 6th Artillery Battalion[4] have designed and proposed a plan for an "automobile cannon project" in 1903, which was rejected. But its submission piece by the General President of the Technical Artillery Committee stated:

> "The objective of the machine is to create an automobile artillery piece, capable of going over the rough terrain only accessible to horse carriages, and offering to the personnel and the engine parts a complete protection from indirect or small arms fire.
>
> -General President of the Technical Artillery Committee to the Army Minister, 1 February 1905."[5]

Unfortunately, this idea was not pursued by the French Technical Artillery Committee. Levavasseur tweaked his idea creating more protection by using steel and constructed a full-scale mock-up. The idea was rejected once again in August 13, 1908 due to the invention of tractors using continuous tracks were exclusive to the British company, Richard Hornsby & Sons.[6] But at the end of 1915 at the height of World War I, "*Little Willie*", a prototype of the Mark I tank was produced for the Landships Committee by Great Britain, established in February of the same year of its design by Winston Churchill. The Landship Committee's goal was to design and produce a developed large wheeled landship.[7] *Little Willie* was the result. Though the tank was never used in combat, its importance have advanced military technology and development internationlly. Its development was factored in by the Committee of Imperial Defence's quotas, listed:

> "(1) The object for which the caterpillar cruiser or armoured forst is required is for employment in considerable numbers in conjuection with or as an incident in a larger and general attack by infanry against an extended front.
>
> […]
>
> (3) The armour of the cruiser must be proof against concentrated rifle and machine-gun firem but not proof against artillery fire. The whole cruiser should be enclosed in armour."

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[3] Albertini, Luigi (1953). *Origins of the War of 1914*. Oxford: Oxford University Press. Web.
[4] Armoured fighting vehicles of the world Duncan Crow 1970, p. 65
[5] "On se propose d'établir une pièce de campagne automobile susceptible de parcourir tous les terrains accessibles aux voitures attelées et qui assure au personnel et aux organes de mouvement une protection complète contre le tir fusant et la balle d'Infanterie", in Gougaud, p. 99
[6] Ibid, p. 100
[7] Miles, W. (1938). *Military Operations, France and Belgium, 1916. 2nd July 1916 to the end of the battles of the Somme* (IWM & Battery Press 1992 ed.).

[…]

(5) The crew to consist of six men—two for the gun, one for each Lewis gun, and two drivers."[8]

The factors that can be emphasized here are the operation of multiple human body to operate a single super-machine. This idea can further be expanded to understand the humanatory operations of Ironclad warships of mid to late 19th century, and more — but for simplicity sake, tank production has its simplicity in its production. By 1916, the War Office ordered 100 Mark I tanks[9]. These were used for the Battle of Somme, Battle of Ypres, and Battle of Amiens.[10] The tank creation and rapid production was a response to trench warfare which was an overarching spatial issue of World War I. To find a technological feat that is operated by a group of individuals but provide an advantage within a space such as a war-zone riddled with barb wires and trenches. The tank's design does not resemble a human body, but its technological advancement of adopting tractors and caterpillar is self-explanatory of where the inspiration of its traction movement came from, Caterpillars. But the *super-machines* itself adopted the biomimicry but it also divorces life. Instead, creating a caterpillar with a metal hat with pointed cannons that destroys life. A *transthesis* of its original biological purpose.

[8] Fuller, John Frederick Charles. *Tanks in the great war, 1914-1918*. EP Dutton and Company, 1920. Pp 26-27
[9] Ibid. p. 32
[10] Walters, Guy. "A History of the Tank: from Leonardo Da Vinci to the Second World War." The Telegraph, Telegraph Media Group, 8 Oct. 2014, www.telegraph.co.uk/sponsored/culture/film-fury/11146708/tank-history.html.

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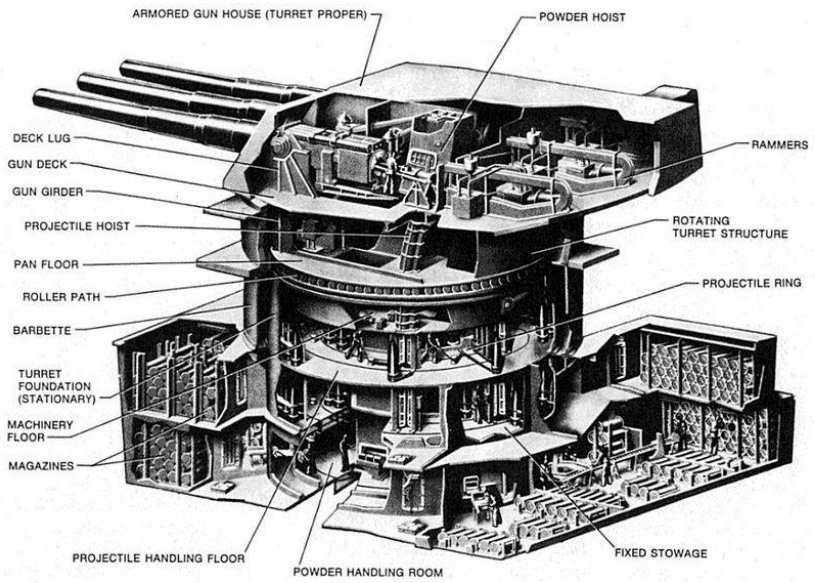
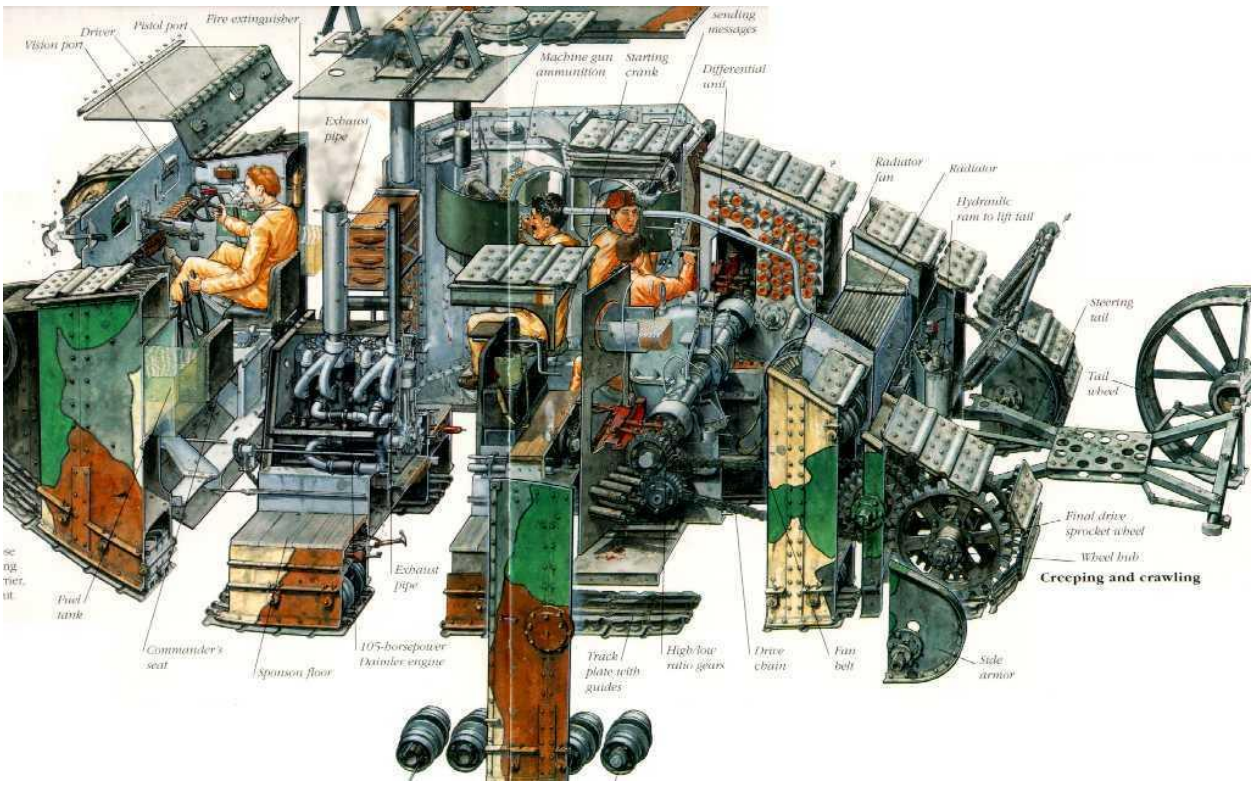


North Carolina Class 16" Turret. Image source: https://padresteve.com/2011/01/22/the-next-generation-the-north-carolina-class-battleships/



Great Britain – MKI tank diagram. Image from: http://www.maquetland.com/phototeque/impression/6824

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Le Corbusier stated that "Our minds have consciously or unconsciously apprehended these events and new needs have arisen, consciously or unconsciously. The machinery of Society, profoundly our of gear, oscillates between an amelioration, of historical importance, and a catastrophe. The primordial instinct of every human being is to assure himself of a shelter."[11] Marc-Antoine Laugier created the "primitive hut" with elements that creates shelter and it's a starting point of architecture. "[…] and there is man housed".[12] What is shelter if a machine for living is both a shelter creator and a shelter destroyer? The super-machine can create new spatial dynamics that destroys the concept of safety. It also destroys *Sacred Spaces*, a basic statement is "A sacred place is never a location only. As fully aesthetic, it becomes an environmental event that fuses participant and location in an aesthetic field." (Menin, 47). But it can be expanded further: "The concept of the sacred can refer to a place, to an experience, or to something more complex: place experience. In associating the sacred with aesthetic experience, Hepburn identifies a strong perceptual focus, the recognition that things have more than utilitarian value but a condition 'where we can find … modes of being other than our own'. (Menin, 47).[13] The presence of a super-machine itself takes away intrinsic values of sacred spaces. Instead, it creates scared-places. In a modern context, a super-machine; though undefined, can be applied to most modern military war machines, operated by a group of individuals. It creates a strong dynamic disposition and contextual disturbance within a sacred space. There are numerous examples, but out of simplicity and modern contextual evidence, in a tactical view, AC-130 is an example of this concept.

The Lockheed AC-130, nicknamed Spectre or Spooky is a heavily armed gunship. Used from 1968 until today with different variants, this single super-machine can achieve the unbalanced hegemony of achieving a task that would have required many soldiers within the ground. "fulfil the thousand services required of one man […] had turned instead to building machines that would perform only one service, but in performing it would "occupy… the place of a thousand men." (Riskin 633). Instead of having a platoon of soldiers, which consists of 80 to 150 soldiers, this single plane operated by 13 crew can achieve greater destruction. There is a multiplicity in force which parallels to how much a single machine can achieve similarly. Its presence alone instills a fear to hide for safety if sided with the adversary. Even without using its weapons, the presence alone creates a panopticist spatial dynamics.

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[11] Corbusier, Le. *Towards a new architecture*. Courier Corporation, 1931. 269
[12] Kruft, Hanno-Walter. *History of architectural theory*. Princeton Architectural Press, 152.
[13] Menin, Sarah, ed. *Constructing place: mind and the matter of place-making*. Routledge, 2004. 47

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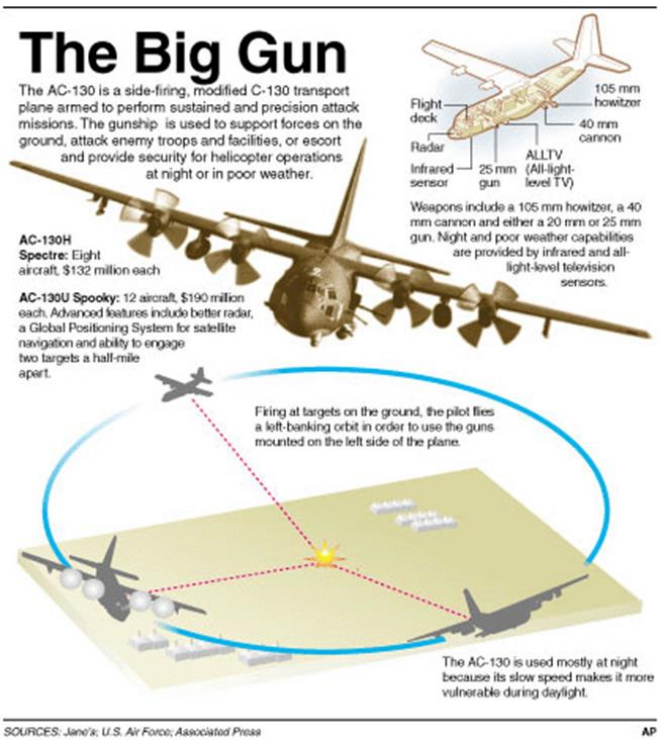

The Big Gun. Image from: Jane's U.S. Air Force, Associated Press. Web

"There is a machinery that assures dissymmetry, disequilibrium, difference. Consequently, it does not matter who exercises power. Any individual taken almost at random can operate the machine". (Focault 202). In contrast to the Panopticon, the power is displayed physically rather than subconsciously. But its mere presence alone significantly affects subconscious thoughts. *Super-machines* are moving panotpicons. It creates a hegemonic spatial dynamic that its presence dictates movement of its people allured by its presence. Like a siren's hymn, all have to follow a spatial ritual for task and safety. An AC-130 floating across the sky, the enemies duck and hide, the operators are focused and alert while away from danger. It floats, circling an implied boundary of spatial dominance. Its presence creates a ritualistic control of human behavior between both ends. The operators must react as if they are all a single body, unison of all tasks and goals. The *super-machines* have created new spatial dynamics in which: "There is no need to fear or hope, but only to look for new weapons." (Deleuze, 4).

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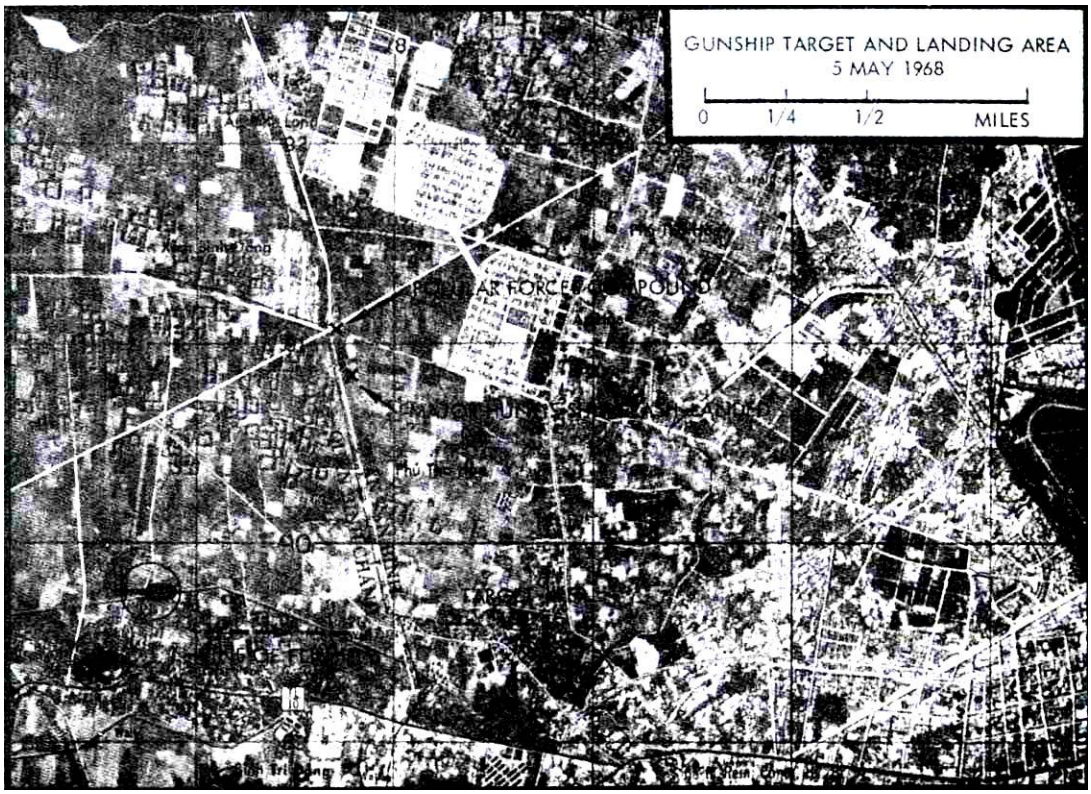

Gunship Mission. Image from: https://history.army.mil/books/Vietnam/7-ff/Ch7.htm

Latour's actor network theory is a philosophical analysis of technology and our interaction towards it. It argues that technology itself shapes us in actions from the basis of a delegated task, which are technology or signs that we humans have also created, an example of this is the seat belt . "Early this morning, I was in a bad mood and decided to break a law and start my car without buckling my seat belt. […] it first flashes a red light "FASTEN YOUR SEAT BELT!," then an alarm sounds; […] so repetitive, that I cannot stand it. After ten seconds I swear and put on the belt." (Latour, 152). Where are the missing masses? Applying this concept one step further, the hegemonic power of *super-machines* does not just create local level discourse as cites, it affects international levels too. An unspecified aircraft carrier carrying multiple fighter jets can cause international disputes, in such even modern strategic warfare is greatly familiar of its strategy. Its presence evokes spatial dominance within 100-200 plus miles due to its godly presence of being almost close to invulnerability due to the amount of delegated task this super-machine can command. This actor network theory is strong enough to transition towards limited war or total war, a completely different paradigm of spatial omnipotence in which *Clausewitzian* principles happen at both ends:

> "War is not an exercise of the will directed at inanimate matter, as is the case with the mechanical arts, or at matter in which is animate but passive and yielding, as is the case with the human mind and emotions in the fine arts. In war, the will is directed at an animate object that reacts. - Clausewitzian, *On War*."[14]

The actor network theory now dictates the playing field of for spatial command, spatial dominance, and spatial dynamics by these super-machine, and the impetus towards a Deleuzian endeavor of seeking weapons.

The *super-machines* are created by us due to the accelerated advancement of technology and our humanistic impetus to impend doom to adversary and personal safety. It is a phalanx that have also mastered an offensive maneuver. Marey's chronophotography have introduced body, Science, efficiency, and ergonomics. All within the scope of the means of production; human labor and assembly lines are, additionally, a contributing factor of the developments of *super-machines*. The idea of production created mass production for tanks in World War 1. Tanks were both the inspiration of biomimicry and the idea of a mobile spatial dominator that protects soldiers. From Sacred Spaces, Scared-spaces are enveloped by the presence of *super-machines*. It creates panoptic qualities of power hegemony within an apparatus, but instead the apparatus itself now seeps towards international levels and a bigger scale of power. The philosophy of Latour's actor network theory is clearly defined in ways of technology as a means of a multiplicity of delegated task. Technology gained power of spatial command, spatial dominance, and spatial dynamics exponentially. This offset level of different hierarchy of physical power are prime trump cards of military strategist. It can be a new factor of contributing a societal transition towards limited war or total war. The *super-machines*' significant physical strength is important to take into consideration. It does not imitate life, it divorces life and it destroys life. Finally, it depends on the level of human thinking applied to achieve a strategic endeavor. All-in-all, though, the brain and the body controls these *super-machines*. They are just mere tools or just mere machines. Renee Descarte's *Cartesian Dualism* will forever be at its presence, and it can be argued that it's still partly a *transthetic* quality, expect operated quantitively in human biological presence.

[14] Freedman, Lawrence. *Strategy: A history*. Oxford University Press, 2015. 82.

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Helmholtz, "On the Interaction of Natural Forces" (1854), trans. John Tyndall, *Popular Lectures on Scientific Subjects*, trans. H. W. Eve at al. (1873; New York, 1895), pp. 137, 138.

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