

# ANIMALS IN

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hen Rachel Carson, the mother of modern environmentalism, gave environmental destruction a seasonal signified with her book *Silent Spring*, she also confirmed something that military strategists had sensed all along. If the misuse of herbicides and pesticides can silence the life of the ecosystem on the

home front, then the tactical deployment of similar chemicals can do the same on the war front, against foreign bodies.

Since all parts of an ecosystem are interrelated, one does not have to literally draw one's sights on human enemies in order to silence them. One has to target their natural environment since, as parts of the systematic target, they will be hit indirectly from all sides. The environmental crisis is a gift to the war machine.

The folly of eco-tactics lies in the fact that ecocide is suicide, the slow way. The soldiers who administered the infamous chemical agents of the Vietnam War were just as much parts of the ecosystem that they destroyed as were their enemies. There was no safe distance, no sterile bubble from which to launch defoliation and area-denial operations. Nature is a double-agent.

While the ecosystem facilitates the communication of certain poisonous messages and provides unwelcome feedback on them, it also yields non-human beings which become strategic and/or tactical 'weapons' in plans of war. The use of animals in military operations has traditionally been in the area of logistical support: camels, elephants and horses carry supplies; and men, dogs and pigeons relay messages. But the fact that the behaviour of animals can be made operational does not fully explain the place of animals in the army.

The ability of some animals to perform certain functions makes them candidates for a high level of anthro-

pomorphism. For instance, since the pigeons and dogs of the World Wars relayed messages that were necessary for the survival of soldiers but could not have been delivered by men, they were said to fill human posts. As a result these animals became candidates for the honours and distinctions of the military establishment. That is, they became animal war heroes. However, animals that have not been made operational also have a place in the military as sign-vehicles. The production of these sign-vehicles is a form of pseudo-speciation. Wild animals are presented as the sum of certain attributes which lend themselves to military projects. As sign-vehicles, these pseudo-species denote and connote units of meaning that are transferred to armaments. Moreover, the animalization of the arms industry supports a vision of a bio-military reality that (con)fuses the operational and semiotic domains, producing wild hybrids through a patchwork of biological and technological signs.

### Strategic and Tactical Creatures

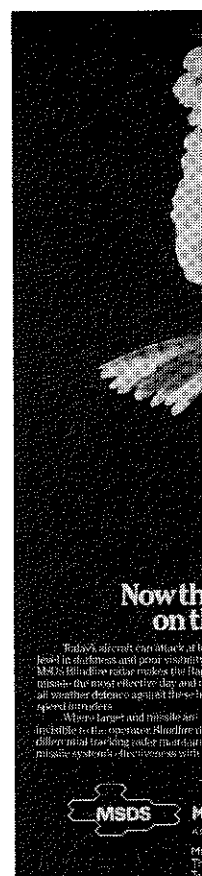
Strategic intelligence is a necessary condition for the realization of tactical capacities; knowing where and what an enemy is gives the concept of tactics a context without which it is meaningless. It is often the case that one must locate the position and size of an enemy force in an unobtrusive manner since giving away one's position in the act of coming to know where they are may have fatal consequences. In the effort not to stand out, a potential strategic resource to use in gathering information is something that belongs to the environment in which one is operating. In *The War Animals*, Robert E. Lubow explains that throughout the 1960s U.S. military agencies engaged in reconnaissance sound projects involving insects and birds. In 1963, the U.S. Army Limited War Laboratory and the Department of Agriculture conducted trial and intruder detectors. In these tests, researchers sought to capitalize on the olfactory sensitivities of mosquitoes and giant cone-nose bugs by constructing detection devices that contained insects and sound monitoring equipment. When the insects sensed the

presence of humans, they would increase their activity and the resulting noises were amplified so that the human operators of these devices would be alerted to the presence of intruders.

In the wildlife sounds schemes of 1964, the U.S. Army Security Agency thought that it might be possible to make use of changes in the vocalization rates of certain birds to detect enemy forces. In feasibility studies, researchers compared the vocalization rates of birds in their natural milieu with sound patterns influenced by the presence of humans. Since the birds increased their rate of acoustic output in the presence of humans, it was believed that the comparison of 'empty' and 'intruder' auditory outputs might have a strategic use value. In both types of experiments the results were promising but inconclusive, since it proved to be impossible to control and contain the environmental variables that produced false alarms. While the ecosystem provides a rich array of draffees, these creatures do not distinguish between 'researchers' and 'intruders'.

Just as a strategic weapons system may be used tactically and a tactical system may become strategic, strategic creatures may be used tactically and *vice versa*. Strategic creatures such as mosquitoes do not have such a capacity for decisive assault or control and thus make rather poor tactical weapons; birds, however, as Alfred Hitchcock recognized, are better candidates for tactical deployment.

The successful use of racing homer pigeons for logistical purposes in the First World War led to fears in the Second World War that the 'Nazi wolves' were attaching cameras to messenger pigeons and obtaining photographs of Allied emplacements. The fears of the Allies were justified if only on the basis of the line of research that the American psychologist B.F. Skinner began to pursue in 1941. In Skinner's work the logistical pigeon and the bird of strategic lore became a hybrid tactical bird in the form of a pigeon-guided missile. Skinner believed that the most efficient, cheap and expendable homing system for a guided missile was an organic 'homing device', a pigeon.



This "crackpot idea" referred to it in his book, *The Pelican*, was of behavioural nature to respond to the target appeared on a screen at the image. A "jacketed", explosive head, and placed the Pelican missile target was thrown through a lens in a missile. As the target image, the servosystem of the forward the target. employed three to increase the nals.

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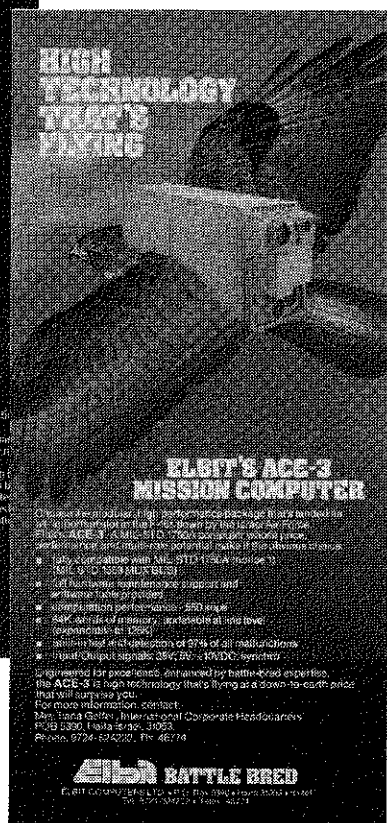
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2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000.

This "crackpot idea," as Skinner referred to it in his 1960 paper, "Pigeons in a Pelican," was based on the ability of behaviourally engineered pigeons to respond to the image of a target that appeared on a small screen by pecking at the image. A bird was immobilized or 'jacketed', except for its neck and head, and placed in the assembly of the Pelican missile in front of a translucent screen. The image of a target was thrown onto the screen through a lens in the nose of the missile. As the bird pecked at the target image, the contact between its beak and screen signaled the servosystem of the missile to steer toward the target. Eventually, Skinner employed three- and seven-bird 'units' to increase the reliability of the signals.

When the official word came that further work

(Britain, Second World War), for successful 'drops' with his handler behind enemy lines.

Cooper relates the tale that in the Second World War, Russian suicide dogs were outfitted with bombs and trained to approach German tanks and crouch in their caterpillar treads as they advanced, presumably waiting for a cue from a trainer that never came. This tale establishes a rhetorical surround in which evil, immoral patterns of domestication (suicide dogs) may be clearly distinguished from moral, Christian uses of domesticated animals. For Cooper, 'good' uses are those that enable some animals to emerge as heroic members of

animals too can dominate nature by serving in the war effort. If they help humankind, they should be treated with respect; if they don't 'join' the conquest of nature crusade, they are enemies.

As Wendell Mitchell Levi describes in *The Pigeon*, a particularly brave pigeon named 'Cher Ami', a Blue checker cock, served with the New York Battalion of the 77th Division under Major C.S. Whittlesey in the First World War. Credited with saving the 'Lost Battalion' by breaking through a barrage of enemy fire to deliver the message for help, this heroic bird was stuffed, mounted and placed in the Smithsonian Institution as a military artifact. One of the 'perks' of domestication and war service, then, is a trip to the taxidermist.

In bestowing the honours of the military establishment upon the 'gallant gentlemen' of the pigeon corps, a curious logic is established: homing pigeons are rewarded for what they would do naturally. Instinct is seen as a way of satisfying the trainer and is heroic because it is 'exercised' to save human troops in the name of the state. Hyper-tropomorphism is manifested when one believes that nature consciously gives itself over for the 'greater cause' of the war effort and the good of humankind.

But instinct serves the enemy as well. In the First World War, it was feared that pigeons in Great Britain might be working for German spies. These fears lead to the destruction and internment of many birds as well as wing-clipping programmes. By the time that the British government realized the pigeon's strategic value, it faced a shortage and had to ask pigeon fanciers to gather their birds for the war effort. If birds can deliver messages for the Germans, they can also deliver false messages to them for the Allies. Instinct is a form of counter-espionage.

### Armament Animals

Esso used to tell us to put a tiger in our tanks; this is just the sort of message that arms merchants take seriously. While many of us may recognize that a lynx and a cougar are wildcats as well as the sort of automobiles that one finds in a Mercury showroom, their proper cultural habitat, few of us would associate a lynx with a Canadian Armed Forces 'Lynx' Command and Reconnaissance Vehicle or a cougar with a Canadian Armed Forces 'Cougar' (76mm gun) Wheeled Fire Support Vehicle. While the connections between a lynx and a car, or a ram and the toughness of a Dodge truck have been actively cultivated through the marketing strategies of the automobile industry, similar connections between animals and machines have been generated through

the marketing strategies of the arms industry. When McDonnell Douglas-Northrop says there's nowhere to hide from an angry Hornet's aircraft with Sidewinder missiles under its wings, *there is* a new sting in Canada's air.

'Animality' has come to mean the savage struggle of natural fighting machines. Many of these fighting machines have been tamed. Those that remain untamed are enemies that can be controlled by militarized domesticates. The U.S. Army's P-40 Warhawks, those famous 'Fighting Tigers' so dear to the palettes of war artists, were emblazoned with the gaping jaws of a shark. In a moment that pushes husbandry into the realm of tyranny, the pilot harnesses and controls his animalized killing machine: *Sic' em!*

Military equipment is commonly named after animals: a scout car is a ferret; ammunition is copperhead; tanks are bulldogs and fireflies; homing-all-the-way missiles are hawks. Advertisements for armaments help to explain the relationships between arms and animals by selectively encoding a scene in which the transfer of attributes to the product may be deciphered by the audience. For example, a Bell 'Cobra' helicopter resembles this snake because it is metaphorically venomous; it is pictured as flattening itself out and rearing its head just as a cobra flattens its neck to a hood; it assumes this position, just as the snake does, in order to strike; like the snake, it lifts itself off the ground and hovers. Pertinent visual-iconic resemblances, reinforced by a narrative, are designed to solidify the arms-animal ligature. In this sense, the connections appear to be natural.

Although it is often the case that birds are associated with the equipment of the airforce, aquatic mammals and fish are presented with the tools of the navy, and land animals - including amphibians - are found together with army supplies, these are constantly transgressed. Particular attributes of animals acquire military meanings, not by virtue of natural categories, but in terms of overdetermined constructions of animals. This process of pseudo-speciation reduces the animal to a set of features that lend themselves to a wide variety of associations: a piranha is an amphibious Swiss battle tank because it "deals with its enemies within a few seconds" (Mowag Ag Kreuzlingen/Switzerland); a wolf is an enemy because it is the quintessential un-tamed, slaving brute and thus needs to be controlled "at safe standoff distances" (Lockheed/California). Further, it threatens "our Navy's vital control of the sea."

The prefigurement of weapons is the final animalization of the machine. A bird has the machine's F-16 fighter jet built into its 'Battle Bred' combat half-mammal, electronically encoded mechanisms (Hugoboss acoustically encoded data gates). These examples are whims of advertising mechanomorphism. The machine becomes a military port in this vision is played out in terms of the past. The machine does have a history in this domain. While the missile approximates reality, Louis F. B. project of the early genuine precursor bio-technological suturing a string bomb into the hoped-for development bombs. If these were dropped into Japan would find place strings, release the fires. In a trial run Caverns, New Mexico found their and set it ablaze. Skinner's, was a bomb was discovered was thought to be with a prosthetic genetic prosthetic of bio-military vision operational reality.

### Futures

The peace researcher relates a tale that the Navy's fascination with the 1960s, a missile elude anti-ballistic in theorizations was given the name that creature is known high altitudes. A the missile was a antelope and given Chevaline. Official Ministry of Defense that this missile species of missile goat. Like the missile was so narily nimble at invention of a creature missile after is a pseudo-speciation it involves the invention and the attributes

In the area of cybernetic and robotic fighting Transformers, Robots of the Universe, "evil insectoid Stang, a scorpion Hasbro's 'Heroic

**In bestowing the honours of the military establishment upon the 'gallant gentlemen' of the pigeon corps, a curious logic is established: homing pigeons are rewarded for what they would do naturally.**

the human family. As members in good standing, they are entitled to rewards; they even go to heaven. Suicide dogs were not given the chance to rise to the occasion, but they made it to heaven anyway. The basic assumption in both moral and immoral cases is that non-human beings are for the use of humankind. But 'good' domestication gives animals a chance to enjoy the spoils of man's triumph over nature. As members of a family that seeks to lift itself out of the natural state of conflict, domesticated

Collecting and analyzing information from the ocean depths is an important challenge for the U.S. Navy. And helping meet that challenge is an underway acoustic data gathering system now being developed by Hughes Aircraft Company. The system will collect data through a sonar array towed by a ship's cable. Information will then be relayed to the ship and on to a shore processing installation. Working closely with the Navy and Hughes Aircraft Company, Syscon is developing the critical software that will keep our Navy one step ahead of any adversary.

Since 1966, Syscon has teamed with other aerospace companies and the Department of Defense to give our Armed Forces the Intelligence Edge. This new data collection system is one more way we're helping the Navy keep that edge.

**SYSCON**

**& SYSCON**

The prefiguration of bio-military weapons is the final step in the animalization of the arms industry. A bird has the mission computer of an F-16 fighter jet built into it (Elbit 'Battle Bred' computers); a shark is half-mammal, half-submarine with electronically enhanced sensory mechanisms (Hughes and Syscon acoustic data gathering system). These examples are not merely the whims of advertisers. The basic mechanomorphic premise that supports the machine-animal equation becomes a military vision. To be sure, this vision is played out in semiotic terms on the pages of magazines, but it does have a history in the operational domain. While a pigeon-guided missile approximates bio-military reality, Louis F. Fieser's 'bat bombs' project of the early 1940s was a genuine precursor of contemporary bio-technological thought. By suturing a string tied to an incendiary bomb into the chest of a bat, Fieser hoped to develop and market his bat bombs. If these modified bats were dropped into Japanese cities, they would find places to hide, chew their strings, release the bombs, and set off fires. In a trial run in Carlsbad Caverns, New Mexico, several stray bats found their way into a hangar and set it ablaze. This project, like Skinner's, was cancelled when the A-bomb was discovered. While the bat was thought to be a tactical creature with a prosthetic military device, it is genetic prosthetics that is the content of bio-military visions in the operational realm.

### Futures

The peace researcher Paul Chilton relates a tale that illustrates the military's fascination with animals. In the 1960s, a missile system that could elude anti-ballistic missiles appeared in theorizations about armaments. It was given the name 'Antelope' because that creature is known for its agility at high altitudes. A further version of the missile was christened a super-antelope and given the name of Chevaline. Officials in the British Ministry of Defence came to believe that this missile was named after a species of antelope akin to the mountain goat. Like this mythical beast, the missile was said to be extraordinarily nimble at high altitudes. The invention of a creature to model a missile after is a radical form of pseudo-speciation. It is radical because it involves the invention of a species and the attributes of its members.

In the area of children's toys, Hasbro, Tomy and Mattel have marketed robotic fighting machines dubbed Transformers, Robo Strux and Masters of the Universe, respectively. Mattel's "evil insectoid steed", the Mantisaur, a modified praying mantis, Tomy's Stang, a scorpion battle creature, and Hasbro's "Heroic Autobot", Sky Lynx, a

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MCDONNELL  
DOUGLAS**

space shuttle that transforms into an attack bird, evoke an imaginary world in which spectacular feats of bio-engineering in the name of war are commonplace. In 1985, *Military Technology*, a professional magazine concerned with developments in the international armaments scene, ran an advertisement for the British company Marconi Communications in which Tomy provided the artwork. The Marconi product, a wideband 'hopping' combat radio set, was presented as a robotic kangaroo similar to the products in the Tomy line of toys. The spread of these sign-vehicles from the realm of children's toys into the marketing of armaments is not surprising since the production of operational and semiotic pseudo-species permits this kind of amalgamation. The rules of sign production, let us say, are complementary and perhaps even complicitous.

The formation of pseudo-species made up of individuals that are part machine, part mammal/insect, and so on, is of course a bio-military vision and not a bio-technological crisis. Still, let us recall that this sign production had its origins in the operational realm with a few 'cancelled' experiments. While I do not believe that the current bio-military vision is even remotely realizable, it is the sort of vision that fuels military spending and promotes the testing of the wildest hypotheses on animals.

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In a moment that pushes husbandry into the realm of tyranny, the pilot harnesses and controls his animalized killing machines: *Sic' em!*

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