



NUCLEAR SOCIETY: Peace at what cost?

Directed energy weapons explained

GREG GAUDET

Kosta Tsipis, an expert in physics who specializes in weapons and weapons systems spoke last Thursday evening at University College, U of T. The subject of his discussion was "Directed Energy Weapons: War or Peace in Space?" Tsipis, who works in MIT's Programme in Science and Technology, talked about the physical impracticalities involved in developing such weapons. Although the subject was technical and potentially complex, Tsipis spoke to the audience of about 150 using terms that anyone could understand "by knowing just a little physics".

There are, according to Tsipis, two types of directed energy weapons: the particle beam, which destroys by transmitting electrons; and the laser beam, which destroys with the use of focussed light waves. Several potential advantages exist in using such weapons. Firstly, they transmit their energy over long distances without requiring a "vehicle" (a missile, for example). Secondly, the energy travels at the speed of light. It is for these reasons that directed energy weapons may be developed for use with space satellites—they would be used to knock out other satellites or ballistic missiles.

Tsipis pointed out that there are many physical laws which hinder the use of directed energy weapons, and for this reason he said, "We should not be spending billions on (the weapons). We should be negotiating."

Tsipis discussed in detail the problems associated with these weapons. For instance, he explained that, in the case of the particle beam, a reaction between negative and positive electrons would destroy the weapon itself.

The laser is also subject to physical laws which effect its use in space. Tsipis pointed out that, even if all these problems could be solved and even if all the proper sophisticated equipment—to perform functions like tracking targets, assessing damage if the beam hits, and communicating this information back to earth—was developed, one

very large obstacle remains—that of supplying energy to power the beam.

For the U.S. space shuttle to supply the amount of energy required to destroy 100 targets, the vehicle would need to make 500 trips to the satellite with the particle beam weapon. And this is under ideal conditions—each shot getting a direct hit. If a laser beam is used, the number of required trips jumps to 3000.

Tsipis' lecture was the first in a series of public lectures offered by University College and Science for Peace. The next one will take place February 24 at the West Hall, University College and will feature Prof. Anatol Rapoport, Director of the Institute for Advanced Study, Vienna.

Films fight for justice

MARSHALL GOLDEN

Emile De Antonio has a point of view and he's not afraid to make films which express it. What makes De Antonio's films different from those of many other socially concerned filmmakers is the political overtone of his message. Perhaps that is an understatement.

De Antonio's three most famous films, *Point of Order*, *In the Year of the Pig* and *Underground*, are a celebration of leftist politics and

ideologies. Each film unabashedly bears the stamp of De Antonio's politics, each is an attack upon aspects of the right-wing establishment.

OUTRIGHT ASSAULT

Point of Order (1963), De Antonio's first film, has an outright assault on McCarthyism with a most devastating weapon. This documentary was De Antonio's first "compilation" film: that is, a film assembled from footage shot by others and often acquired from public archives and newsreels. By using real footage of McCarthy instead of scripted scenes, and with scrupulous editing, De Antonio paints a most damning portrait.

Similarly, *In the Year of the Pig* (1970) he uses the compilation technique to present a negative statement on Vietnam. The film, one of De Antonio's most famous, consists mainly of footage shot by the army itself and was so effective that it received an Academy Award nomination.

LEFTIST DIRECTOR

Underground (1970) was a film only partially made with compilation footage but it was one of his most controversial. Produced in collaboration with Mary Lampson and Haskell Wexler, a leftist director and cinematographer, the film consists of a series of interviews with the Weathermen, a group of outlawed Sixties radicals. Filmed at a "safehouse" in the country, *Underground* is essentially a statement against the establishment by the last few members of the SDS (Students for a Democratic Society). Much of the controversy surrounding the film stemmed from the status of these radicals. At the time *Underground* was made, all of the people filmed were wanted by the FBI for various crimes of protest, including the bombing of the Capitol Building in Washington. By taking special care not to show their faces or to reveal their whereabouts, De Antonio placed himself in a serious legal position and one of social disfavour.

De Antonio's latest film, *In the King of Prussia*, is a continuation of his personal political statement through film. He admits openly that "the film makes no pretense of objectivity. It is a film of commitment which is entirely supportive of the actions of the Ploughshares Eight"—eight men sentenced from three to ten

Majority attempting to end nuclear armament through non-violence

"One who breaks an unjust law must do so openly, lovingly, and with a willingness to accept the penalty...an individual who breaks a law that conscience tells him is unjust, and who willingly accepts the penalty of imprisonment in order to arouse the conscience of the community over its injustice, is in reality expressing the highest respect for law."

Martin Luther King, Jr.

AMELIA GOLDEN

As the world sees an alarming increase in the number of nuclear weapons, it seeks methods to end their production. Peace groups are sprouting up all over the continent; movies, such as *Gandhi* illustrate how old and effective non-violent action can be and well-organised, quiet marches and rallies are gaining impetus.

While passive protests are becoming an increasingly familiar part of the disarmament movement, there is still controversy over the methods used to promote an end to nuclear arms. Protest tactics tend to fall into two categories: violent and non-violent. The debate concerning the effectiveness of the two approaches continues.

Advocate violence

On one hand, groups like Direct Action advocate violence to fight violence. This particular faction claims to have blown up a vital building in the Litton Industries complex in Rexdale, Ontario. It will cost Litton thousands of dollars to repair the damage and those responsible for the destruction have yet to be apprehended.

On the other hand, what appears to be a majority of people, are attempting to achieve world peace and an end to nuclear arms through non-violent protest. They claim that bombs and threats are not only ineffective, but run counter to the philosophy of the peace movement.

The most recent non-violent protest occurred on November 11th at the Litton plant where 2,000

years in jail for practicing non-violent civil disobedience—their act of protest against the ongoing nuclear arms build-up. De Antonio's recreation of the trial is his personal protest against nuclear proliferation. Martin Sheen plays the incredibly insensitive judge, Samuel W. Salus; the defendants were played by themselves—on a two-day leave from prison.

Shot entirely on videotape, *In the King of Prussia* is a continuation of De Antonio's leftist filmic style. It is an event that is recreated as De Antonio saw it happen, a recreation that he believes has more inner truth than the actual incident. *In the King of Prussia* plays at the Music Hall Theatre on Feb. 3, 4, and 5 and De Antonio and Sheen will be present at the first screening.

It doesn't matter whether you are sympathetic to De Antonio's leftist ideologies, this film should be seen. As a filmmaker who challenges the norms of both Hollywood and society, he should be applauded for having the conviction to present his own viewpoints. His films have a freshness and forthrightness that can turn the head of a society which too often refuses to look.

people gathered in an attempt to close the plant for the day. Many participants were so committed to the cause that they were willing to risk arrest.

Over 100 police officers, 50 squad cars and 10 mounted police were present to "keep the peace". The irony of which was equalled only by the charges laid against the 62 people arrested for resisting the police. Ironic because all the protesters had attended an eight-hour training session at which they were urged not to resist arrest. When the police dragged them away, the protesters were advised to "go limp" - and they all did. Many were arrested anyway and they will be tried on February 14th in Etobicoke.

The case of arrested non-violent protesters has been taken up by other anti-nuclear activists. One example is the special benefit that will be held in Toronto in early February. Screenings of Emile De Antonio's *The King of Prussia* will raise money for the Alliance of Non-Violent Action. Appropriately, De Antonio's film is about the alleged mismanagement of the trial of non-violent protesters.

"They shall beat their swords into ploughshares..."

In the fall of 1980, in a Pennsylvania court, eight members of a religious, anti-violent, anti-nuclear group known as the Ploughshares Eight, were sentenced to jail terms ranging from three to ten years.

The group which takes its name from the biblical proverb, "They shall beat their swords into ploughshares", dented and poured blood over two Mark 12A thermonuclear warheads in Pennsylvania's General Electric plant. They prayed and sang until the police arrested them on charges which included burglary, criminal mischief and conspiracy.

De Antonio's film takes place mainly in the courtroom of Samuel W. Salus (played by Martin Sheen of *Apocalypse Now* fame) where the Ploughshares (played by the real Ploughshares out on a 2 day leave from prison) remarkable trial took place. De Antonio presents the judge as a highly prejudiced and unjust man "who has been declared unqualified by his own bar association", while the Ploughshares are depicted as calm, rational, peaceful people who start humming or singing religious songs during the judge's most unfair speeches.

De Antonio is himself an active participant in the anti-nuclear movement and his point of view is clearly expressed in *The King of Prussia*.

The film will be screened on February 3 at 8 p.m., February 4th at 7 and 9 p.m. and on February 5th at 7 and 9 p.m. at the Music Hall Theatre. Anyone interested in the film may call 964-6901 or the Canadian Disarmament Information Service (CANDIS) at 585-2255.

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