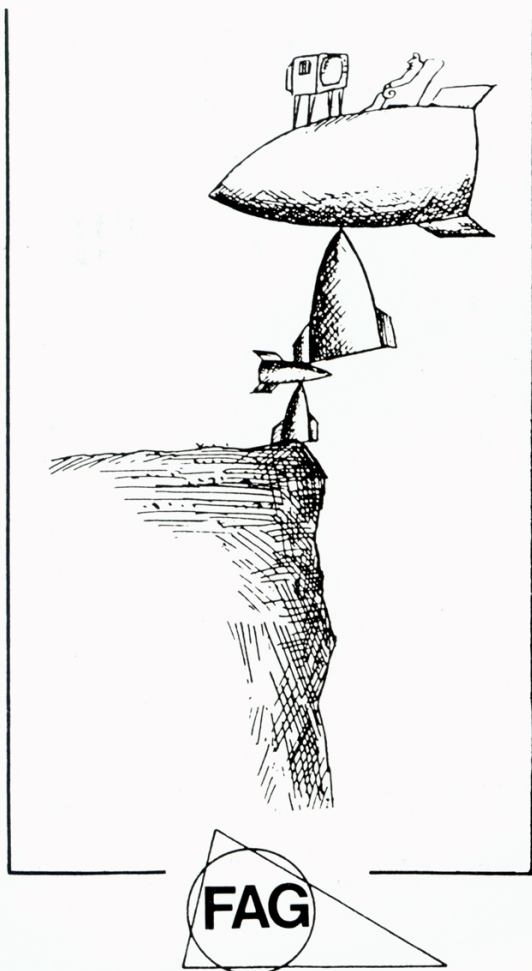


ERIK BERNSTORFF • ERIK PHILIPSEN

# THE ARMS RACE OF THE HUMAN RACE



~~Mekanisk, fotografisk eller anden gengivelse af denne bog er ikke tilladt.~~

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The Danish Peace Foundation ([Fredsfonden](#)) and the Danish [UNESCO](#) National Committee contributed to the publication of this anthology.

**We must never relax our efforts to arouse in the people of the world, and especially in their governments, an awareness of the unprecedented disaster which they are absolutely certain to bring on themselves unless there is a fundamental change in their attitudes toward one another as well as in their concept of the future. The unleashed power of the atom has changed everything except our way of thinking.**

— [Albert Einstein](#)<sup>1</sup>

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1 Quoted from the article article "[Atomic Education Urged by Einstein](#)", New York Times May. 25<sup>th</sup> 1946.

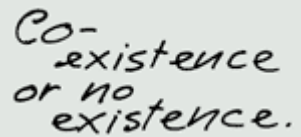


**ERIK BERNSTORFF • ERIK PHILIPSEN**

**THE ARMS RACE**

**or**

**THE HUMAN RACE**



Co-  
existence  
or no  
existence.

*Piet Hein*



*'We must learn to live together as brothers and sisters or we are going to perish together as fools.'*<sup>2</sup> " — [\*Martin Luther King, Jr.\*](#)

## **Preface**

This is an anthology about the dangers of the arms race and the prospects for the [peace](#) process.

The texts have been collected from various sources: International journals ([Bulletin of the Atomic Scientists](#), Newsweek), books ([Anthony Sampson: the Arms Bazaar](#), Helen Caldicott: *Missile Envy*, and many others), official documents and speeches from the US, the USSR and the British establishments, pamphlets from the United Nations and the peace movements (east and west), interspersed with cartoons, graphs, poems and short quotations. Originally, the anthology was aimed primarily at English-as-a-second-language classes at higher levels in Denmark, but through contacts made during the compilation, the editors have come to believe that the book might be read and discussed in school classes and study groups, or privately, anywhere in the world where English is used as a first or second language.

We have wanted to present a more detailed and coherent picture of the deeper causes of the arms race than is normally given by the fragmented and often confusing TV - and news coverage of these matters. And having made the reader aware of the formidable forces peaceable people are up against, we felt it incumbent upon us to provide examples of people and organizations who have visions of a safer future and how to achieve it. So the second main section of the book is devoted to some attempts at reversing the armament process and to exemplifying the peace process.

To avoid trivializing the subject we have preferred to present aspects of the arms race that are not so often at the centre of public debate - and we have tried to select texts, like

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2 [Speech](#) in St. Louis, Missouri, March 22, 1964.

e.g. Kurt Vonnegut's '[Fates Worse Than Death](#)', that approach the subject in unorthodox ways.

To the non-native speaker some of these texts are by no means easy. But we hope to have somewhat made up for this by supplying them with comprehension questions, and - to Danish students - ample help with notes and glosses - the latter in a separate booklet.

It is our hope that those who choose to read and discuss these texts will be willing to invest the extra time and energy that the important, but also complicated, subjects demand. By way of encouragement to teachers, we have added a postscript with a discussion of some of the problems which the nature of the subject produces, and a few suggestions for approaches and procedures.

Finally we wish this anthology to be considered a contribution to the efforts of the [International Year of Peace](#), which in the words of the UN [proclamation](#) "*provides a timely impetus for initiating renewed thought and action for the promotion of peace*"<sup>3</sup>.

Erik Bernstorff

Erik Philipsen



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<sup>3</sup> The International Year of Peace, which will be solemnly proclaimed on the 24<sup>th</sup> October 1985.

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## GLOBAL VIEWS, Introduction

### Nicholas Humphrey: Beyond Understanding (1,5 ns)

The nature, the size, the killing power of nuclear weapons is beyond understanding. We can't relate it to anything we know - so we are apt to turn our backs to the threat they represent. This realization is a first step to overcoming our "aboriginal blindness".

### More Arms, Less Security (1,9 ns).

This extract from a UN pamphlet counters the current MAD concept and shows the colossal waste of resources, which makes arms dealers richer and Third World countries poorer and more dependent on the major military powers.

## THE ARMAMENT PROCESS

### MAGIC SPELLS AND DEMONS, Introduction

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A nursery rhyme about everybody's share in the bomb.

#### Why War? (1,2 ns)

In a letter to Sigmund Freud Albert Einstein raises fundamental questions about the causes of war.

#### The Machismo of Weapons (0,8 ns)

The attraction that weapons have on boys - are girls invulnerable?

#### Henry T. Nash: The Bureaucracy of Mega Murder (4,6 ns).

Professor Nash is haunted by memories of his job in 'Air Targets', plotting targets for nuclear attacks in the USSR. The subtle workings of the bureaucratic structure remove notions of guilt and responsibility in his daily routine.

#### Enemy Images (1,1 ns).

A constellation of cartoons and short texts analysing and exemplifying enemy images - How do they get into our minds? - and how do we get rid of them? US peace campaigners show one way by giving a more sober view of the Russians.

#### A Plea For Peace (1,4 ns)

A letter from young Swede about war and peace in the media.

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Two college students have "created a monster", a computer game simulating real battle situations. What does Newsweek's reporter think of it? - and we?

#### Alan P. Lightman: Lost in Space (3,1 ns)

The glamour of space, the thrill of inventing new kinds of nuclear weapons are dangerous motives at work in young scientists - driving motives in the armament race, which deserve more attention.

**Anthony Sampson: Perfectionists and Professors** (1,9 ns)

Visiting Californian aero-space centres, Anthony Sampson makes observations - not of much use to the intelligence service of any foreign power - but thought-provoking to the alert reader.

**Newspeak / Nukespeak** (6,6 ns)

Extracts from George Orwell's Nineteen Eighty-Four, and Paul Chilton's Nuke-speak. The language of thought control dehumanizes our way of thinking and trivializes and legitimates the arms race.

**Prayer for F16**

A special "magic spell" for a new fighter plane.

**THE MILITARY INDUSTRIAL COMPLEX**

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The President warns against unwarranted influence of the military-industrial complex. Neither big money nor scientific-technological elites should be allowed to gain decisive influence on the democratic processes and on the Federal Government.

**Jerome B. Wiesner: A Militarized Society** (4,8 ns)

Former presidential adviser and scientific expert maintains that an excessive military build-up in the U.S. seems to have been propelled by deliberately false predictions about the Soviet threat. The citizens must free themselves from the 'military culture', and insiders and experts must speak out.

**Jan Øberg: The Dynamics of the Arms Race** (3,6 ns)

Danish peace researcher explains the exterior and interior driving forces within the influential and powerful Military-Industrial Complex (the MIC) in the USA and the Military-Bureaucratic Complex (the MBC) in the USSR.

**General Electrics: A Business of War** (3,4 ns)

The influence of the Military-Industrial Complex exemplified: The entanglement of 'big government' with 'big business', and the tendency that military 'requirements' are often defined by 'think tanks' of private corporations. Thus, private interests often become the real decision makers.

**Etienne Bauer: Irresistible, Irrational, Indomitable Military Technology** (1,5 ns)

Weapons designers do not work at the same pace as governments. The development of a weapons system takes from 10-15 years, and when a device is implemented - what politician is strong enough to say: we won't produce it. The patient work of diplomats may thus be overthrown.

**What's so Wrong with the Military-Industrial Complex?** (4,0ns)

Airforce General Mullins, speaking to the National Security Industrial

Association, defends the military-industrial complex against "unjustified blame and criticism

### **GUNS OR BUTTER? Introduction**

#### **Helen Caldicott: The Iron Triangle**

Analyses the arms race as a disease caused by the Iron Triangle (Congress\*, Pentagon\*, the MIC and 'think-tank' scientists.

#### **Illiteracy, A Matter of Priorities** (0,5 ns)

One third of all adult Americans are functional illiterates!

#### **The Cost of the Arms Race** (2,0 ns)

Extract from a UN pamphlet describing "the world's perverted priorities", e.g. how vast resources - raw materials, money, scientific manpower - are wasted on arms instead of being used to solve pressing problems: poverty, hunger, disease, pollution.

#### **Frank Barnaby: The Arms Trade and the Third World** (2,9 ns).

Analyses the motives of buyers and sellers of weapons, and points to some effects in relation to Third World countries. The boomerang effect of using arms export as a political lever is exemplified.

#### **Anthony Sampson: Arms Salesmanship in the Third World** (2,2ns).

Reveals the methods used by big arms manufacturers selling arms to Third World countries where arms are not needed - and the consequent escalating of the local arms race between poor countries, who cannot even feed their own populations.

#### **Dearth of a Salesman** (2,0 ns)

Columnist Art Buchwald, Washington Post, has Arthur Miller's salesman transformed into a frustrated arms dealer, whose Third-World customers are not what they used to be. Linda comforts him as always.

#### **Anthony Sampson: Pride and Prejudice** (0,9 ns)

According to a Californian Trade Union Boss converting work on the B1-Bomber to peace production is out. "Workers can't have pride in building low-cost housing when the low-income families just use them for putting garbage in the hall."

#### **Arms to South Africa** (3,8 ns)

Discloses how the Danish coaster Sarah Poulsen shipped arms from Communist Bulgaria to South Africa to be used against "Communist rebels".

#### **Swords into Ploughshares, Conversion** (6,3 ns)

A British Trade Union report on the attempts to convert military production into civilian without losing jobs.

### **DETERRENCE - DEFENCE OR PRETENCE**

#### **Star Wars** (4,5 ns)

The Star Wars project, some of the men behind it, and their way of thinking about the arms race. Less noticed is a strong protest against the project from 1.300 American scientists including 12 Nobel Prize winners.

### **Star Wars and the MAD Stability** (0,6 ns)

Former presidential adviser and disarmament expert is interviewed by Granada Television.

### **Best False Alarms** (1,2 ns)

Shocking examples of malfunctioning technology bringing the world close to nuclear war by accident.

### **Brian Morris: Genesis** (2,6ns)

What happens when Man in his technological fancy thinks he can disregard Nature and do without God.

### **Kurt Vonnegut: Fates Worse than Death** (9,9 ns)

In a very unorthodox 'sermon' Kurt Vonnegut deals with the problem 'rather dead than red' or vice versa in his own innocent, brain-teasing manner. In vain he tries to imagine the fates worse than death in case we choose to do without nuclear bombs.

### **Nuclear Weapons and Preventing War**

The official British views on nuclear and conventional weapons, on East-West relations, and on the NATO deterrence strategy as a means of preventing war.

### **Adrian Mitchell: On the Beach at Cambridge** (2,5 ns)

Standing on a hill near Cambridge the poet dictates to a small tape recorder his visions of a completely transformed landscape after a nuclear war, "listening to the sea beating its head against the dying land".

### **Lowell Brown: Living with Nuclear Weapons** (1,6 ns)

Can the suicidal perspectives of a computerized "launch-on-warning" deterrence be avoided? The article gives a wise bid for it.

### **Three Minutes to Midnight** (2,2 ns)

The editors of 'Bulletin of the Atomic Scientists' have moved the "Doomsday Clock" forward by one minute as a consequence of the accelerating nuclear arms race and the advancing 'militarization of thought and discourse'.

## **REVERSING THE ARMAMENT PROCESS**

Introduction

### **UN Secretary General Cuellar: By What Right?** (6,8 ns)

"By what right do the leading nuclear-weapons powers decide the fate of all humanity?", asks de Cuellar, asserting that to rely on nuclear deterrence is to accept a perpetual community of fear.

### **The Peace Process** (1,0 ns)

Traces the efforts of NGOs and some alternative roads to peace, presenting basic proposals from both sides.

### **Peace Movements in the West** (3,5 ns)

Highlighting 100 years of popular peace work the article shows how recent protest movements develop distinct alternatives aiming at a lasting peace.

### **Appeal for European Nuclear Disarmament** (2,1 ns)

One of the basic documents of the Western European peace movements in the eighties. Envisages a nuclear-weapon-free Europe from Portugal to Poland, and a gradual dissolution of the military alliances.

**Peace Movements in Eastern Europe** (1,8 ns)

A "Message from the Soviet Government" presents some basic ideas of the official peace initiative, and a glimpse of the structure is given.

**Dissenters** (2,1 ns)

This section brings an appeal from the Czech Charter 77-group, which offers alternative views (to Western peace movements) on a nuclear-free Europe based on human rights.

**Detente From Below** (4,0 ns)

Practical examples of the new peace process: 1000 US cities link with USSR cities; Aarhus, nuclear-free town; American grass-roots say: "We can do it!"

**Julie Burchill: Revolutions per Minute** (1,0 ns)

Discusses whether political or human issues are helped on by being expressed in a form "you can dance, sing or fuck to".

**Nigel Young: Peace Studies as a Preparation for Life** (1,3 ns)

Clarifying views on peace studies as a vital part of responsible education today, opening up, and not indoctrinating pupils' minds.

**John Lennon: Imagine.**

**Postscript** (Mainly for the teacher)

**The Weight of Nothing** (0,5 ns)

A modern fable.

**Book- and Film lists**

**Glossary of Technical Terms, Acronyms and Abbreviations**

Note on abbreviated texts.

In most cases it appears directly from introductions or otherwise in the texts when they have been abbreviated - but in the case of the following titles this may not be so.

A Militarized Society. Irresistible, Irrational, Indomitable Military Technology. Living with Nuclear Weapons. Three Minutes to Midnight. Arms to South Africa.

## GLOBAL VIEWS

The two opening texts present the broad perspectives of the issues raised and discussed in this book. They state the vastness of the problems and the incomprehension with which we are left when trying to confront them. This is where many people now-a-days tend to stop, closing their eyes and turning their backs. The rest of the book attempts to do the opposite - against all odds.

## BEYOND UNDERSTANDING

*Extract from [Nicholas Humphrey](#): "[Four Minutes to Midnight](#)"*

I start with incomprehension, where I suspect many of us both begin and end. Nuclear weapons are not comprehensible: neither you nor I have any hope of understanding just what they are and what they do. In saying that, I mean to belittle none of us: it is almost a compliment. For I do not see how any human being whose intelligence and sensitivities have been shaped by traditional facts and values could possibly understand the nature of these unnatural, otherworldly weapons. So-called 'facts' about the Bomb are not facts in the ordinary sense at all: they are not facts we can relate to, get our minds round. Mere numbers, words. Let me repeat a fact. The [bomb](#) which was dropped on Hiroshima killed 140.000 people. The uranium it contained weighed about 25 pounds; it would have packed into a cricket ball. 140.000 people is about equal to the population of [Cambridge](#). I, for one, cannot grasp that kind of fact; I cannot make the connection between a cricket ball and the deaths of everyone who lives in [Cambridge](#). I cannot picture the 140.000 bodies, let alone feel sympathy for each individual as he or she died. And when someone tells me - and I tell you - that a war between the United States and Russia will now mean that the equivalent of



5,000 Hiroshima bombs will land on England, my imagination draws a blank. It is not just that I cannot bear the thought; I cannot even have the thought of 5000 Hiroshima bombs - 5.000 times 140.000 people equals 700 million; 700 million dead out of a population of 50 million. Something wrong somewhere, everyone getting killed ten or twenty times over.

There are strange and interesting precedents in history. When [Captain Cook](#)'s great ship, the [Endeavour](#)<sup>4</sup> sailed 200 years ago<sup>5</sup> into [Botany Bay](#), the [Australian Aborigines](#) who were fishing off the shore showed no reaction. The ship', wrote [Joseph Banks](#) in his [journal](#) of the voyage, 'passed within a quarter of a mile of them and they scarce lifted their eyes from their employment... expressed neither surprise nor concern'. In the experience of these people nothing so monstrous had ever been seen upon the surface of their waters - and now it seems they could not see it when it came. But theirs was a selective blindness. Cook put down his rowing boats: now the natives were alarmed, now they looked to their defences. Blind to the greater but incomprehensible terror, they reacted quickly enough to a threat which came within their ken.

We too, react selectively to man-sized threats. It is not giant dangers or giant tragedies, but the plight of single human beings which troubles us. Six million [Jews](#) are put to death in [Hitler's Germany](#) and it is [Anne Frank](#) trembling in her garret, who remains stamped into our memory. We are each of us too human to understand the killing power of nuclear weapons, each too close to the good earth to understand how a cricket ball could explode with the force of 10.000 tons of TNT. Each of us is aboriginally blind.

*Nicholas Humphrey is a scientist.  
He gave this lecture on the BBC in 1981.*

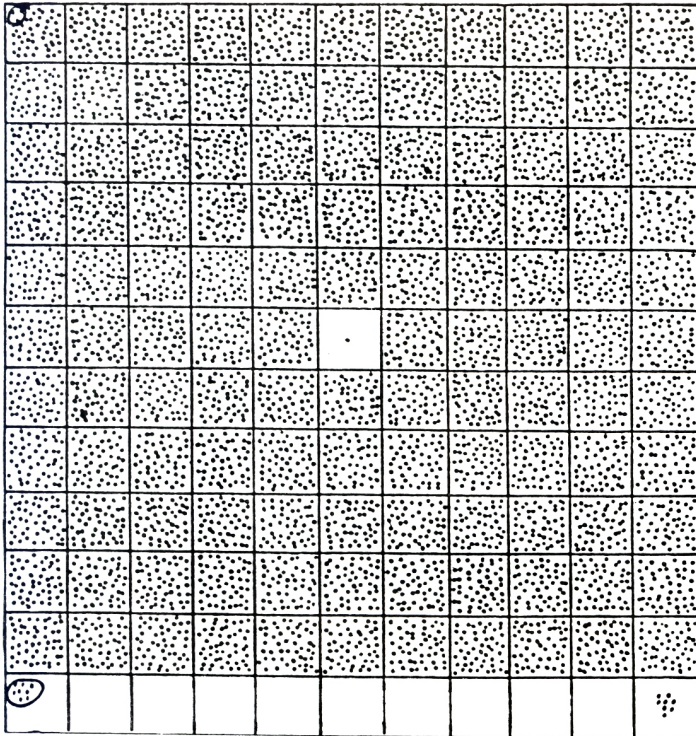
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4 Read: His Majesty's Bark the Endeavour.

5 Read: 1768-1771.

## Comprehension:

1. Nicholas Humphrey says his mind "draws a blank" when he tries to comprehend the reality of the figures connected with the nuclear arms race. In the charts pp. 11 and 14-15 attempts have been made to make these figures comprehensible. Discuss the effectiveness - or limitations - of these attempts.
2. What is it to be "aboriginally blind" according to Nicholas Humphrey?
3. Could one say that the decision makers in matters of nuclear war are also "aboriginally blind"? Give reasons.



## NUCLEAR WEAPONS CHART

The dot in the center square above represents all the fire power of World War II: three [megatons](#).

The other dots represent the number of World War II equivalents that now exist in nuclear weapons. This is 18,000 megatons or the fire power of 6,000 World War II's. The United States and the Soviets share this fire power with approximately equal destructive capability.

The top left hand circle enclosing 9 megatons represents the weapons on just one [Poseidon](#) submarine, equal to the fire power of three World War II's, enough to destroy over 200 of the Soviet's largest cities. We have 31 such subs and 10 similar [Polaris](#) subs.

The circle in the lower left hand square enclosing 24 megatons represents one new Trident sub with the fire power of eight World War II's, enough to destroy every major city in the northern hemisphere.

The Soviets have similar levels of destructive power.

If you place a dime on this chart, those dots covered by the dime represent enough fire power to destroy all the large and medium size cities in the entire world.

(United States Senate staff have reviewed this chart and found it to be an accurate representation of the nuclear weapons arsenals.)

*From Freeze it*, issued by Norwich Peace Center, Vt. USA



*“Surely there are some western values, which must be defended - as one side says. And surely, there are also eastern values that must be defended - as the other side says. But there are also some human values that must be defended by all of us - and foremost of these values is humanity itself”.*

Said by [Olof Palme](#), "the quintessential man of peace", in Geneva 1984, and quoted by UN General-Secretary [Pérez de Cuéllar](#) in his funeral address, March 15, 1986 in Stockholm.

## MORE ARMS, LESS SECURITY

*Extract from: The Arms Race or the Human Race?  
United Nations 1981.*

No sooner had the fires of the Second World War died than a handful of countries set out to make or improve the atomic bomb. In their quest for security, they sought a bigger and "better" bomb. And so began the biggest, most wasteful, most dangerous arms race in human history.

No arms race had ever placed mankind in such a predicament. Never before had States possessed the means to inflict such devastation on others. Never before had the destructive capacity of one weapon been so immediate and global. Never before had the peoples of the world had to face the real possibility of self-destruction.

Today, driven largely by the competition between the major powers, the arms race has attained a mad momentum. The future of mankind -indeed, all life on earth - is threatened as never before. Nuclear weapons now number in the tens of thousands - a total explosive power of 1 million Hiroshima bombs. That is enough to destroy the world many times over. World trade in non-nuclear (conventional) arms is booming, with many of the poorer nations substantially increasing their purchases. Millions have been killed by conventional weapons in scores of [conflicts](#) since 1945.

Apart from the ultimate danger to the world, the cost of the arms race is colossal, as illustrated by the following:

- The arms race has devoured more than \$6,000 billion since the Second World War - a staggering \$500 billion in 1980 alone, or almost \$ 1 million every minute!
- Many of the world's poorer countries have entered the arms race. Some now spend as much on the military as they do on agriculture - while food production per person declines and people starve.
- More money is now spent on military activities world-wide than on education, medicine or any other field of social endeavour.





*On this map of the world the fire power of one Trident is covering with its 24 "mirved" missiles the entire USSR, while the equivalent Soviet nuclear submarine is "mirving" the USA in the same way. Since 1981 when the USA christened its first Trident, the "Ohio", the US Navy have been building Tridents at the rate of one every 8 months. The Soviet build-up is on the same scale. © Henrik Monved*

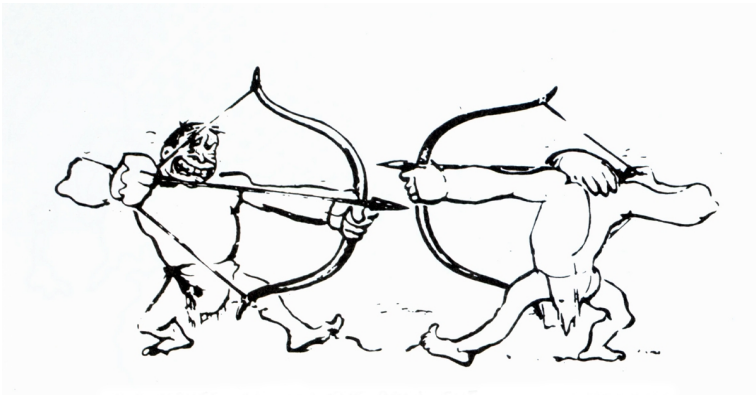
Many of the major problems facing the nations of the world today - development, economic disparities, inflation, pollution, energy and raw materials, trade relations and technology - are aggravated by the arms race and progress in such areas as health, education, and housing is slowed by the diversion of resources for military purposes. Only 5 per cent of the \$500 billion spent annually for arms would suffice to reach the target for official development assistance set in the [International Development Strategy](#) for the Third United Nations Development Decade (1981-1990).

Governments justify their expanding military programmes as

essential for "defence" or "to preserve peace". Yet it is the presence of so many lethal weapons in the world, many of them poised to strike, together with the further stockpiling and constant refinement of weapons of all kinds, that poses today the unprecedented threat of the self-extinction of mankind.

The existence of these overstocked arsenals exaggerates international tensions, sharpens local conflicts, handicaps the process of détente, aggravates differences between opposing military alliances, and heightens the sense of insecurity among all States, including those which do not possess nuclear weapons. Above all, the arms race increases the risk of nuclear war.

The time has long since passed when the possession of enormous stockpiles of arms, particularly nuclear weapons, provided a guarantee of security. On the contrary, they pose much more of a threat than a protection for the future of mankind. Genuine security can only be found now in abandoning the use of force in international relations and proceeding to [disarmament](#), a gradual process beginning with a reduction in the present level of armaments. For this and succeeding generations, the start of that process is overdue.



*THE TIGHTER I DRAW THE BOW,  
THE SAFER I BECOME*

## **Comprehension:**

1. What marks the current arms race as different from any other?
2. "...the arms race has attained a mad momentum". Make a list of facts and paradoxes that support this statement. (Don't forget the title!)
3. "A handful of countries" ; "governments justify..."Why can't the author(s) of the pamphlet be more specific?
4. What is suggested as a means of reducing the threat of the arms race?

## **THE ARMAMENT PROCESS**

It may take the special insight of a scientist to realize and admit the actual inability of the human mind to comprehend the facts and implications of nuclear warfare, and it may take the authority of a United Nations disarmament expert to contradict with sufficient credibility the assertion of leading statesmen that more arms give more security.

But asking the question: WHY, only takes ordinary common sense.

Why do the great powers literally take the rest of humanity as hostages in their struggle for supremacy? Why do they pile up arms that can only be used for death and destruction? Why do scientists and technicians spend their precious knowledge and time developing new weapons when the forests are dying, the deserts spreading, the seas getting poisoned, and townships deteriorating in social conflict?

There is no simple or single answer, but in the following three sections all dealing with The Armament Process, generals, scientists, peace researchers, journalists, writers and poets give their views on three important aspects of the arms race. The first one deals with the magic spells and fascinations that lure people



of good will and intention into participating. The second focuses on the influence and the workings of the military-industrial complex (the MIC).

The third one illustrates and discusses social priorities, the choices that governments and politicians make on our behalf when deciding in matters related to 'national security' - or to the needs of the poor at home or to the starving masses abroad.



## MAGIC SPELLS AND DEMONS

This section examines some of the ways in which the individual's notion of responsibility is being undermined.

There is the fragmentation of information that makes it possible for perfectly respectable and sensible experts to sit calmly at their desks plotting out the destruction of 'enemy' cities, there are the 'Star Warriors' who 'get lost' in their creative/destructive dreams in their laser weapon labs, there is the seeping into the unconscious of enemy images e.g. in computer war games, and there is the 'naturalization' of the entire 'nuclear culture' through the gradual development of a language of euphemisms

nukepeak, which typically names the latest missile, capable of destroying 10 major enemy cities The Peacekeeper. You may come across these phenomena in your computer classroom or your history lessons or on the screen of your tv-set -they all share one quality: that of being dangerous - and overlooked.

## **RESPONSIBILITY**

I am the man who gives the word,  
If it should come, to use the Bomb.

I am the man who spreads the word  
From him to them if it should come.

I am the man who gets the word  
From him who spreads the word from him.

I am the man who drops the Bomb  
If ordered by the one who's heard  
From him who merely spreads the word  
The first one gives if it should come.

I am the man who loads the the Bomb  
That he must drop should orders come  
From him who gets the word passed on  
By one who waits to hear from him.

I am the man who makes the Bomb  
That he must load for him to drop  
If told by one who gets the word  
From one who passes it from him.

I am the man who fills the till,  
Who pays the tax, who foots the bill

That guarantees the Bomb he makes  
For him to load for him to drop  
If orders come from one who gets  
The word passed on to him by one  
Who waits to hear it from the man  
Who gives the word to use the Bomb.

I am the man behind it all  
I am the one responsible.

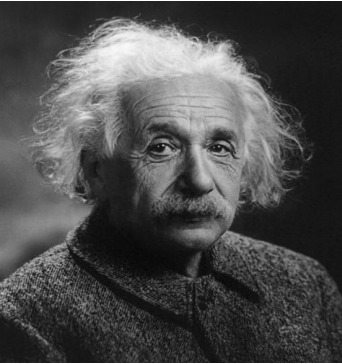
## PETER APPLETON

### **Comprehension:**

1. Let us suppose that the first I (line 1) is the President of the United States. Who might the other 6 I's be? What do they do specifically?
2. The poet chose the form of a well-known type of nursery rhyme<sup>6</sup>. How does that particular form suit his purpose ?

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6 This Is the House That Jack Built.



## WHY WAR?

In 1932 Albert Einstein, the physicist and [Sigmund Freud](#), the psychologist exchanged letters dealing with the problem of war. In his [letter](#)<sup>7</sup>, from which an extract is printed below, Einstein states that the establishment of some sort of World Government is the only road to world security, but he leaves no doubt that strong psychological factors thwart such efforts:

"Some of these factors are not far to seek. The craving for power which characterizes the governing class in every nation is hostile to any limitation of the national sovereignty. This political power-hunger is wont to batten on the activities of another group, whose aspirations are on purely mercenary, economic lines. I have especially in mind that small but determined group, active in every nation, composed of individuals who, indifferent to social considerations and restraints, regard warfare, the manufacture and sale of arms, simply as an occasion to advance their personal interests and enlarge their personal authority." (...)

"How is it possible for this small clique to bend the will of the majority, who stand to lose and suffer by a state of war, to the service of their ambitions? An obvious answer to the question would seem to be that the minority, the ruling class at present, has the schools and press, usually the Church as well, under its thumb. This enables it to

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7 Originally published as: [Warum Krieg](#), Paris 1933.

organize and sway the emotions of the masses, and make its tool of them. Another question arises from this. How is it these devices succeed so well in arousing men to such wild enthusiasm, even to sacrifice their lives? Only one answer is possible. Because man has within him a lust for hatred and destruction (...)"

Einstein ends by asking Freud: "Is it possible to control man's mental evolution so as to make him proof against the psychoses of hate and destructiveness?" (...)

## THE MACHISMO OF WEAPONS

The peculiar attraction that weapons seem to have on men and boys: The Machismo of Weapons is a factor that seems to play its hidden role in world politics as well as in the arms industry. [W.H.Auden](#), British-American poet said: "Today our phallic toys have become too dangerous to be tolerated. I see little hope for a peaceful world until men are excluded from the realm of foreign policy altogether and all decisions concerning international relations are reserved for women, preferably married ones".

The special excitement of the arms industry and its appeal to machismo has always given it a clout far beyond its usefulness: the workers on the B1, the labour unions insist, regard their job as more worthwhile and noble than 'leaf-raking' jobs like building houses.

No politician can altogether afford to ignore the atavistic appeal of arms to the male psyche. The word weapon was up till the fourteenth century synonymous with penis, the missiles and machine guns, and the sexy roar of the Tigers, still hold their phallic spell whether in Iran or Los Angeles.

It is no accident that many of the most effective crusaders against arms have been women, who are not vulnerable to this primitive thrill, from [Bertha von Suttner](#) to [Alva Myrdal](#) and the many women now involved in the movement for arms control.

*Anthony Sampson in The Arms Bazaar, 1977*

## **Suggested discussion points:**

1. "Women are not vulnerable to this primitive thrill", discuss! Relevant points from: [The Video-Game Industry](#) and [Lost In Space](#).
2. To what extent are Einstein's 1933 statements on the causes of war still valid?
  1. Who are the "governing class" today? Politicians, captains of industry and finance, scientists and experts?
  2. How do these groups influence decisions on war/peace? Relevant points from: [A Militarized Society](#).  
[The Dynamics of the Arms Race](#).  
[GE, A Business of War](#).



*Aerial view of the [Pentagon](#), the world's largest office building.*

## THE BUREAUCRACY OF MEGA MURDER

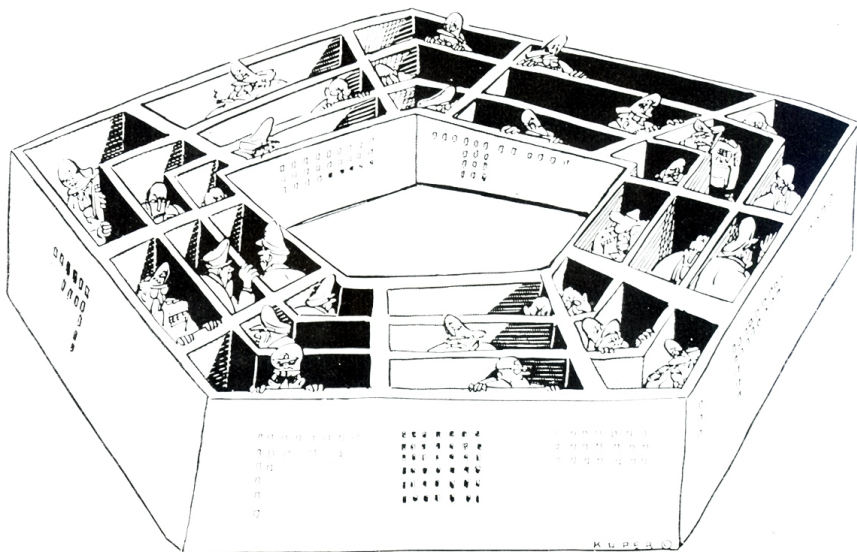
*Men in blue, green and khaki tunics and others in three-button business suits sit in pastel offices and plan complex operations in which thousands of distant human beings will die.*

*[Richard J. Barnet](#).*

During the 1950s and 1960s, the hot years of the [Cold War](#), I held several jobs with the [Department of Defence](#) (DOD). I remember most vividly my job with the [Air Targets Division](#) of the Air Force where I worked as an intelligence analyst. Here I helped select [targets](#) in the Soviet Union at which, in the event of war, Air Force officers would fire nuclear warheads. As an analyst my responsibility was to 'nominate' as targets buildings



identified as Communist Party headquarters located in various Soviet cities. While I worked at selecting and justifying political targets, fellow analysts in other offices were busy identifying different types of strategic targets - petroleum depots, airfields, or industrial centres. Each of us made nominations for the integrated Air Force strategic target list and we each hoped that our targets would be chosen for a DOD strategic plan of nuclear attack designed to bring about a rapid, unconditional surrender of Soviet forces. Today, as a professor in a small liberal arts college, I am frequently visited by haunting memories of my work with Air Targets. I'm surprised how clear these memories are: the details of my work, the faces and names of my colleagues and the atmosphere of the place where I worked (...).



## **THE NAGGING QUESTION**

But the haunting memories are tied less to people and place than to a nagging and disturbing question - what was it about work with Air Targets that made me insensitive to its homicidal implications? I and my colleagues, with whom I shared a large office, drank coffee and ate lunch, never experienced guilt or self-criticism. Our office behaviour was no different from that of men and women who might work for a bank or insurance company. What enabled us calmly to plan to incinerate vast numbers of unknown human beings without any sense of moral revulsion? At least no signs of moral revulsion surfaced when we were having an extra Martini or two at lunch to celebrate the inclusion of some of our government control centres in a Joint Chiefs list of prime Soviet targets. The Cold War made selecting targets for attack in the Soviet Union seem respectable. Crisis conditions made targeting seem imperative, which, in turn, made it morally acceptable.

## **THE FRAGMENTATION OF INFORMATION**

Another factor was that the complex vastness of the Defence Department prevented any intelligence analyst from determining how his work might be used by higher-ranking officials. The relationship between cause and effect was obscured. Analysts were permitted to know only if it were needed to complete an assigned task. Without a need to know access was prohibited. Thus, in case of the Air Targets Division, I had access to targeting information pertaining to Soviet government control centres, but I did not have access to data concerning other categories of targets, such as Soviet petroleum depots or air bases. Need to know restricted each analyst's appreciation of the larger context of which his job was a small part. Obscuring the 'big picture' helped promote peace of mind.

## **TEAM WORK**

While some administrative arrangements prevented analysts from grasping how all the parts fitted together, others helped analysts to achieve a sense of professional security and personal gratification. For example, analysts usually worked as members of a team. A well-received team product provided reinforcement through shared, mutual congratulations while, in the case of a negative or critical reaction, the individual player could absolve himself from personal responsibility by blaming less insightful team members or by joining fellow team mates in blaming the unappreciative system.

## **WORST CASE SITUATIONS**

Another facet of DOD research was the practice of developing reports in terms of the so-called 'worst-case' situation. With regard to assessments of Soviet military capabilities, for example, analysts tried to depict the most extreme and threatening dimensions of the Soviet Union's military power. The worst-case approach to 'research' was encouraged by the DOD since this strengthened its chances to motivate Congress to increase defence funds. Ascertaining enemy capabilities in terms of the worst case disposed analysts to see relations among nations as being hostile and threatening. This encouraged the view that America's interests were best protected through superiority in arms.

Worst-case thinking stressed the importance of 'standing up to the Russians'. This could be best done by getting more weapons since, of course, the only thing the Russians respected was force.

## **ONLY A GAME**

As the arms race continued and the United States and the Soviet Union got more and more weapons there were more and more items to count and the quantitative orientation of these tasks held the attention of analysts, and the relationship of weapons to human life was an incidental consideration. During a [NATO](#) war game I remember the surprise expressed by an Air Force colonel when he was informed of the number of casualties that resulted from his hitting an 'enemy' town centre with a one-megaton weapon. The colonel quickly regained his composure, reassuring himself that this was, after all, only 'a game'. (...)

## **SECURITY CLEARANCE**

Also contributing to the atmosphere of intelligence work was the stress given to security clearances. Being cleared represented a flattering experience sharpened by the quality of selectivity, not unlike the feeling accompanying acceptance by a fraternity or country club. You knew you were chosen. Being included confirmed that you had been found worthy by those unseen and unnamed officials somewhere in the upper reaches of the bureaucracy who managed America's security needs. Thinking back on DOD security practices, I realize that levels of clearance represent just another dimension of information fragmentation. A preoccupation with the structure, process, and mechanics of the day-to-day existence was encouraged by the atmosphere of the DOD and one quickly became absorbed by these problems. What was done with the end product of work became of secondary importance.

## ENEMY IMAGES

If, on the other hand, a moment arose when one's thoughts happened to fasten on the human consequences of developing and using arms, there was consolation to be found in the reminder that America's victims deserved their fate, and that it was the victims who were responsible for bringing a nuclear holocaust down on their own heads. Describing the Soviet leadership as evil, corrupt, immoral, sadistic, power mad and inhuman - plus being communists - provided at least a partial justification for their elimination. Vilifying the enemy is a long standing government practice intended to legitimize the killing of others. In World War II, the enemies were Nazi pigs and yellow-bellied Japs. During the Cold War communists were referred to as Red Fascists. Later, in the Vietnam War, the North Vietnamese were seen as aggressive communists and were therefore evil. Killing them was further facilitated by depicting them as 'slants' and 'gooks'. Since gooks were only half human, killing them was 'no big deal'. (...).

I have been back to Washington a number of times to talk with old friends. Each time I visit the Pentagon or wait in the visitors' lobby at [CIA headquarters](#) in [Langley](#), Virginia, I catch myself staring at the men and women who pass by. I hear snatches of conversations and am struck by the amount of laughter. It's all very much as I remember it - people whose speech and behaviour suggest their sociability, but also their strong conviction that they are doing what needs to be done and is therefore right. Nothing in the air hints of guilt. There is still the working atmosphere of a bank or insurance company.

*Henry T. Nash. Professor of Political Science at Hollins College, author of several books on foreign policy.*

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### Comprehension:

1. Describe the author's job as an "intelligence analyst".
2. "The relationship between cause and effect was obscured". Explain and comment. (You may include the term "alienation" in the discussion).
3. What was the nagging question? Make a list of possible answers to and explanations of the nagging question. (Notice the useful headlines of sections)
4. "Crises conditions". What crises could the author be talking about?
5. Is the author still working for the DOD (Department of Defence) If not, why do you think he left that job?
6. Describe the author's thoughts on visiting his old friends in Washington.



## ENEMY IMAGES

The American statesman [George Kennan](#) says:

When a military planner selects another country as the leading hypothetical opponent of his own country—the opponent against whom military preparations and operations are theoretically being directed—the discipline of his profession obliges him to endow that opponent with extreme hostility and the most formidable of capabilities. In this way, not only is there created, for planning purposes, the image of the totally inhuman and totally malevolent adversary, but this image is re conjured daily, week after week, month after month, year after year, until it takes on every feature of flesh and blood and becomes the daily companion of those who cultivate it, so that any attempt on anyone's part to deny its reality appears as an act of treason or frivolity. In this way, the planner's hypothesis becomes imperceptibly the politicians' and journalists' reality, upon which a great deal of American policy and of American military efforts come to be based. •

But the "enemy image" that a nation adopts is fickle and transitory. To give recent and relevant examples: In 1942, Americans responded to a poll by using these adjectives to

describe the German-Japanese enemy—warlike, treacherous, and cruel. None of these adjectives appeared in describing the Russian allies. By 1966, the mainland [Chinese](#) were warlike, treacherous, and sly, but these words had disappeared from language describing the Germans and Japanese; indeed, they were seen as hard working allies. Now the [Russians](#) had become warlike and treacherous. In American eyes, the "[bloodthirsty](#), cruel, treacherous, slant-eyed, buck-toothed little Japs of [World War II](#) have become a highly cultivated, charming, industrious and thoroughly attractive people."

*George Kennan, ambassador Moscow 1952-53, ambassador Beograd 1961-1963, also prof. of history at [Princeton](#)*

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*Photo Imra Benko*



## A PLEA FOR PEACE

*One of the numerous messages, collected by the UNESCO Youth Division in 1985, from young people for the maintenance and strengthening of peace.*

Why is it morally right to kill in times of war but not in times of peace? Murder is given big headlines in the newspapers. The placards shout "Extra! Extra!" We are shown pictures of the victim and can later see the murderer on his way to trial.

When do we see on the front page a small, thin girl dressed in rags, who has become a victim of an armed conflict? Will we ever see her lying stretched out on the ground with a bullet in her temple? And where are the policemen with their handcuffs, who are to arrest the person who killed the girl?

Where is justice? Who says: "It was I" and who confronts the relatives? When a soldier is killed in action and cannot be found, he is reported as missing. His place in the army is soon filled, but who is to give the parents a new son? And who can replace a lost brother or dead fiance? Who? A fallen soldier, a child - they become part of the statistics. It is not possible to have compassion with figures, regardless of what they represent. This is exploited by governments all over the world. A human being is a toy in their hands...

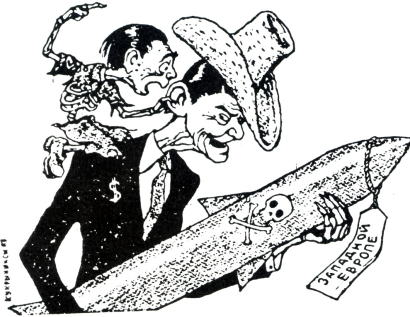
As long as we cannot see or feel the fear of these men, we can close our eyes to war and its horrors with a clear conscience. We can make believe that it does not affect our country or our money! But how long can we do that? When grown-ups tell their children that they must stop fighting, what do they mean? Does that fight just disturb them or are they upset by fighting? In spite of that, they are able to buy war toys for their children and allow them to see films where violence dominates the story! The children are brought up to be violent!

If one is fed daily with violence, one's mind becomes blunted. One gets used to seeing men aiming guns at other men, most often gangsters, and bang! -there the criminal is lying on the ground while blood oozes from his chest... Many children watch such scenes without batting an eye-lid. In addition they learn that conflicts can (and should) be solved by violence! There, in a nutshell, is the meaning of war! The inability

to solve differences of opinion in any other way than by using violence! If children today are not taught to handle conflicts through negotiations, they may use violence in later life. Our society shows that there are many aggressive and unhappy men. Thus one has to start with the children. If a person is never taught to get on with those closest to him, how is he going to be able to live in peace with the rest of the world? ...

Marie Eriksson, 20 years old  
Sweden.

## BUILDING ENEMY IMAGES



### FROM DR. CALDICOTT'S MEETING WITH PRESIDENT REAGAN<sup>8</sup>:

He replied that he, too, doesn't want nuclear war but that our ways of preventing it differ; he believes in building more bombs.

8 December 6th, 1983. See also:  
Caldicott, Helen: A Desperate Passion: An Autobiography. - W.W. Norton & Company, 1997 ; 2009 - ISBN: 978-0-393-33302-2.

He said that Russia is stronger than America and wants to take over the world, with Communism dominating, and that Russia already has a base ninety miles off the American coast....! noted that America has Russia ringed by bases in Italy, Greece, Turkey, Britain, France, and other countries, and that many of these bases are equipped with nuclear weapons and missiles. He denied the fact. He seemed not to appreciate the strategic significance of the Pershing II missiles threatening part of the Soviet Central Command, Control, and Communication Centers (C<sup>3</sup>) in Moscow. At one point, Patti (Davis, the Presidents daughter) interrupted the conversation and said, "Dad, I know what Dr. Caldicott is saying is correct, because I have a 1982

Pentagon document to prove it." He looked at her and said. "Its a forgery."



### THE PRESIDENT SAID THE RUSSIANS WERE EVIL, GODLESS COMMUNISTS.

I asked him if he thought they were all evil, but he declined to

answer. I also asked him if he had met a Russian, and he said, "No, but we hear from their emigres." He later said, "Talking of saving millions of people, the Russians have a great civil-defense system." I asked him where he got these data from, and he didn't seem to know. I asked if they came from T.K. Jones, and he didn't appear to know who this was. (T.K. Jones is the Deputy Under Secretary of Defense for Research and Engineering, Strategic and Nuclear Forces, in the Pentagon—one of the officials in charge of civil-defense policy, who made the famous statement, "If there are enough shovels to go around, everybody's going to make it.")

In this and the following pages enemy images are being built up - and broken down - in various ways:

1. Describe some of the ways it is done.
2. Try to identify the senders and their motives. It is not always a 'one-way process': Try to point out how the process works both ways: e.g. Who is seen as the enemies (by whom?), when President Reagan denounces the Russians, and who is the 'worst' enemy: The Russians or Reagan, when the latter is shown to be listening to a small devil looking like [Dr. Goebbels](#), Hitler's Minister of Propaganda ?
3. Find similar points in these pages, and in the media generally, and discuss how you / people react to them.

# BREAKING DOWN ENEMY IMAGES

## What About the Russians?

### CAN WE TRUST THEM?

— to adopt our view of the world? NO.

The Russians will continue to support people we oppose and run their country in ways we don't like. A nuclear weapons freeze will not resolve the ideological conflict between us. It will lessen the chance that we'll blow up the world over our disagreements.

— to negotiate and comply with a freeze? Based on their record, YES. For several years, and especially recently, the Russians have suggested a freeze, so we know they're interested.

Paul Warnke, the Carter Administration's chief arms negotiator, confirms this view with the following observation:

**In my negotiations, I had the feeling that the Soviets were more serious than we were — not because of any philanthropic impulses, not because they're nice guys, but because they recognize that their political system is infinitely more fragile than ours.**

### Building Trust

Trust is the basic issue, but it has become something of a buzzword. We've become so accustomed to asking, sceptically, whether we can trust the Russians that we tend to overlook the ways in which we already do trust them. We trust them, as disarmament specialist Martha Daniels points out, "to be equally rational (in not wanting to start an unnecessary nuclear war), we trust their computers to be fail safe, and we trust their political system not to let a maniac come to power who wants to push the button." In the [nuclear age](#), with no alternative to peace, we also have no alternative but to build on trust wherever we find it.

### DO THEY WANT TO OVERRUN THE WORLD?

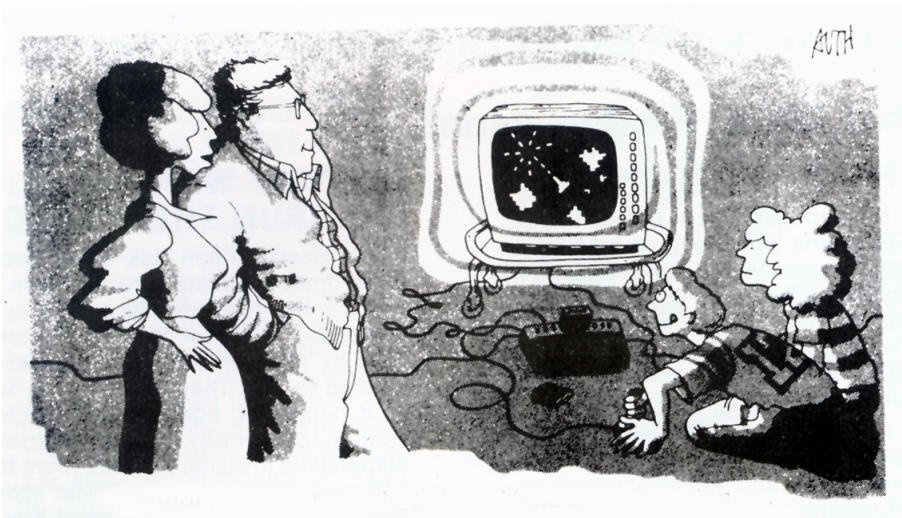
The Soviet Union has been invaded three times by western countries in this century: during World War I and II by the Germans, and after their revolution in 1919 by fourteen western

countries, including the US. They are extremely wary of it happening again, understandably. Both in this century and earlier (such as Napoleon's invasion in 1812), there is an historical basis for what Soviet scholar and veteran US diplomat George Kennan calls the Russian "oversuspiciousness, a fear of being tricked or outsmarted, an exaggerated sense of prestige." Soviet actions have to be considered in light of Russian geography as well as history. The USSR is not surrounded by oceans and friendly countries on their borders as we are. What may look like aggressive behaviour to us — repression in Eastern Europe, extensive military build up, and a large standing army — can also be seen as part of an age-old effort at self-protection. Since World War

II, all direct Russian military intervention has taken place along their borders. The Russian action in Afghanistan is contemptible and vicious, but that doesn't make it necessarily aggressive toward us.

In fairness, we should ask how large our army would be if Canada were our mortal enemy, as China is Russia's. Or how much of a military buildup we would have on our southern border if Mexico were bristling with nuclear missiles aimed at us, as western Europe's arsenal is aimed at the Soviet Union. Every nation that has nuclear weapons aims them at the Soviet Union — something which no country would take lightly, least of all one that has historically been obsessed with the fear of invasion.

*From Freeze it*, issued by Norwich Peace Center, Vt. USA



*I know it's great for their hand/eye coordination . . .  
it's their brain/reality coordination that bothers me ..."*

## **The Video-Game Industry**

An aspect of the high-tec revolution that frightens me is the video-game industry, which has captured and captivated our children. Many of these computer games are nuclear war games that are, in effect, conditioning our offspring from a very early age to the prospect of nuclear war. I can think of no more insidious and invidious influence that could be distorting these lovely innocent and open minds than these genocidal games. They are overtly aggressive and are apparently very attractive to boys of all ages. The primary-school boys say they love playing them, and when they finish, they feel very active and aggressive. Girls, on the other hand, soon tire of them and walk away, wondering at the boys' fascination.

- Here is some public relations copy taken from the pamphlet advertizing [\*Star Path\*](#) video games for children.

## Communist Mutants from Space:

"Your mission : Vaporize the mutant warriors before they overrun your home planet. These Commie Mutants are crazy! Wipe out wave after wave of them, and they keep on coming. The more you vaporize, the meaner they get. Well... you've got a few tricks up your sleeves, too. The 'Shields' option lets you reflect their bombs with a tug on the joystick. Time War' lets you gain back lost ground, when necessary. •

Up to four can play, and the screen keeps track of the highest scores just to make sure the heroes get the recognition they deserve".

*Extract from Helen Caldicott: Missile Envy.*

## Homo Manipulatus



Reclining	staring	time
or bent forward	at series and	until the nuclear
eating Hamburgers	exciting scenarios	war
chips or Hot-dogs,	of death and destruc-	fought to
drinking Coke	tion	preserve
or Carlsberg	interrupted only	our precious
or mugs of coffee	by fresh supplies of	way of life.
	food	
	before the next series	

Danish original by [Carl Scharnberg](#)

### Comprehension:

1. What do you think is so 'captivating' about video-games<sup>9</sup>?
2. Explain how games like these 'condition' children to the prospect of nuclear war.
3. Why does H.C. find this insidious ?
4. Do you ?
5. Do you know any other ways in which children are influenced in the same way?
6. Could you think of alternative types of video-games that girls might like better?

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<sup>9</sup> or computer games?



## The Thinker's War Game



*Arlton with Gato (and their pet cat Stinky):  
No lucky breaks for the players*

Ping!... Japanese sonar detects your submarine. Blip! ... Your sweaty fingers manage to fire the torpedoes. Blam! ... The enemy destroyer Nagoyo Maru is blasted to bits. Click! ... You punch the escape key, and ... whew! ... another nerve-racking session of [Gato](#) comes to an end.

If you have grown addicted to Gato, the simulated warfare that has become one of the hottest-selling computer games in the

country, blame it on two seniors at the University of Colorado. Two years ago, when his brother got a computer, Paul Arlton was disappointed by the available game software.

The aeronautics-engineering student decided to team up with his room mate, computer-science major Ed Dawson, to see if they couldn't do better. Arlton, a World War II buff, called on his knowledge of history and enginee-

ring to simulate real battles. Then Arlton provided the 'dynamics', or movement, and Dawson the file structure for the programming that allows the enemy to 'think' rather than move randomly.

After 2,000 hours of tinkering they came up with Gato, named after the class of World War II submarine. Unlike routine shoot-'em-up games, Gato was designed not to give lucky breaks. To succeed at increasing levels of difficulty, players must consider such factors as the fuel consumed and the time it takes to launch a torpedo. Even their teachers give Arlton and Dawson high marks for Gato: competing games, says Colorado aero-space engineering prof. Robert Gulp, are almost 'primitive' in comparison. Gato also captivates [Spectrum Holo-Byte](#), a Boulder computer-graphics company, which bought the rights in September 1983 and has sold 15,000 copies world-wide. The publisher expects to sell 100,000 copies this year. Arlton and Dawson receive royalties of 15 percent.

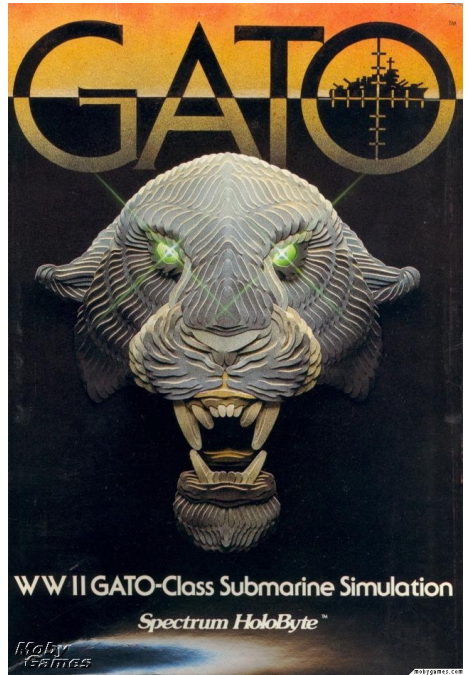
Soon, though, the partners may split up. Arlton, 23, who has maintained both a part-time programming job and a 3.8 GPA<sup>10</sup>, is aiming for Stanford's business

school next fall - even though he has already scored a success that might make any businessman proud. "If you stopped every time you did something right, you'd never get anywhere", he says. Dawson, 22, is hoping to devote himself to Poseidon Systems Inc., the laser-disc technology firm he founded last summer - that is, if he graduates this summer. "Good grades and programming just don't go together," he says ruefully. Both partners still share one Gato-related goal, however. As humiliating as it may sound, neither inventor can yet play the game at better than beginner's level. "We've created a monster", says Dawson.

*From Newsweek on Campus, March 1985*

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<sup>10</sup> In education: Grade Point Average.



## Comprehension:

1. What war forms the background of this game? - Who is the enemy?
2. Is this game likely to have any influence on the players' attitude to the 'enemy'? What might it be?
3. Does the article give any hints about the attitude of the two young programmers/ businessmen to 'war' in general?
4. Are there any indications in the text of the journalist's attitude to the programmers and their game?

Suggestions for further individual/group/class work:

1. Which of the following quotations from the text would make a good headline or caption for this article?
  - a. "The Thinker's War Game"?
  - b. "A Success that Would Make Any Businessman

Proud"?

c. "If You Stopped Every Time You Did Something Right.."?

d. "We've Created a Monster"?

2. Further discussion of point 4 above.

3. What is your own opinion on success stories like this one?

## LOST IN SPACE

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My first face-to-face meeting with scientists working on space weapons happened on a visit to the [Hudson Institute](#) in January 1979. [Jimmy Carter](#) was still in the White House and Ronald Reagan's 'Star Wars' speech was more than four years down the road. After strolling across the spacious grounds of the institute overlooking the Hudson River, I was led into the cosy office of a physicist who could scarcely wait to tell me about new developments in "[particle beam](#)" weapons, to be stationed aboard orbiting satellites in space. After a vivid description of the effects of the weapon, he excitedly showed me some artist's sketches of what the things might look like and, as I recall, even had a papier-mache model, which he let me hold briefly. For a moment I got caught up in the air of derring-do, and wondered what Santa might bring me next year. That childlike attraction to the new generation of nuclear weapons in space is real, dangerous, and seldom discussed. The technical issues, on the other hand, have received a lot of attention. To summarize briefly, there is a growing consensus among most weapons experts that a space-based ballistic missile defence system is probably not workable for another 20 years and, even if eventually deployed, it would be costly and destabilizing. One hundred ballistic missile defence satellites would be needed to give adequate coverage of the Soviet Union, adding up to at least *several hundred billion dollars*, not to mention the incalculable cost of a new arms race likely to follow.



Once operational, an effective space-based system, in unison with offensive weapons, could give the deployer a first-strike capability, inviting pre-emptive attack by the other side. The high vulnerability of such a system further encourages attack.

Apart from all technical issues, a nuclear space-based ballistic defence system would violate the 1967 [Outer Space Treaty](#) and the 1972 [Anti-Ballistic Missile Treaty](#).

However, the *glamour* of STAR WARS still shimmers and beckons. Millions of us, children and grown-ups alike, saw the movie and were mesmerized by images of death-dealing laser rays, sleek aircraft shooting it out in space, and handsome young men battling the forces of evil. These visions seep into the unconscious and resonate with the leftover daydreams of little boys. The [space age](#) is here at last and no one - teacher or businessman or senator - wants to be left behind. "Seize the high ground before the Russians do", is a familiar bugle call from the Air Force, which established its [Space Command](#) in 1982.

Scientists are needed to work on these things, and scientists are not much different from other people. The team of fighter jocks immortalized in Tom Wolfe's [The Right Stuff](#) seem to have been curiously

reincarnated in the dozen or so young physicists 'pushing the edge' in space weapons design at [Lawrence Livermore National Laboratory](#). They inhabit a world of empty Coke bottles and all-night bouts with top secret research, and share an admiring respect for each other's brain power.

A 'right stuff' ethics flourishes in all areas of science. But here it is combined with the glamour of space, the thrill of inventing new kinds of nuclear weapons, and youthful idealism. Says physicist Lawrence West, age 28, "We can try to negotiate treaties and things like that. But one thing I can do personally, without having to wait for arms control, is to develop the technology to eliminate them myself, to eliminate offensive nuclear weapons." What more dangerous creature than the inexperienced macho, armed here with pen and pencil? None in his generation has seen a nuclear explosion. Since the 1963 Test Ban Treaty there haven't been any, above ground. A related motive to watch closely is the love of technology for its own sake : from greeting cards that sing Happy Birthday when opened to F-15s that turn corners at greater acceleration than pilots can endure. In theoretical physicists this translates into pursuit of intellectually interesting problems - wherever they lead. As West says proudly, "The number of new weapons designs is limited only by one's creativity." Compare [Robert Oppenheimer's comment](#) 30 years ago [1954]: "When you see some-thing that is technically sweet you go ahead and do it and argue about what to do about it only after you have had your technical sweetness". It is difficult to find fault with the argument that basic research in space weapons should continue. Most likely the Soviets will. And it is possible that our security in the long run is better served by replacing our current nuclear strategy of mutually assured destruction with one of defence, possibly from space. Research should continue - but soberly with both feet on the ground. Earthbound [ICBMs](#), waiting silent and preprogrammed in their Midwest [silos](#), are dreamlike enough. Weapons orbiting in space dissolve almost completely into a mist of make-believe. Sirens of the unconscious call us to Star Wars:glamour, novelty, childhood fantasies, macho power, technical narcissism. It would seem wise to bring these psychological motives into daylight, to attach **as much importance to them as to technical issues**. The weapons themselves are unthinking, but their creation and deployment spring from the human mind.



*Alan P. Lightman, physicist at Smithsonian Astrophysical Observatory, teaches at Harvard*

**Comprehension:**

1. Examine the first paragraph in order to find out the author's attitude to space research
2. "For a moment I got caught in the air of derring-do". What is the reason why the author only got caught for a moment?
3. The author is talking about "a growing consensus among most weapons experts". What is it they agree about? - and why?
4. Define and explain the terms "[First strike capability](#)" and "[Preemptive attack](#)".
5. Try to find out what SDI (Strategic Defence Initiative) is about.
6. What is meant by the "glamour of Star Wars" ?
7. The author calls physicist Lawrence West an "inexperienced macho". Is it justified?
8. The text ends with a warning. Identify it and discuss it.

## PERFECTIONISTS AND PROFESSORS



*B-1 STRATEGIC BOMBER.*

*In the 70s the United States developed a supersonic intercontinental B-1 bomber. Range—9,800 km with a maximum combat load of 34,000 kg. On October 2, 1981, President Reagan announced plans for developing and putting into batch production 100 new B-1B bombers, a modified version of B-1, carrying cruise missiles (up to 30 missiles each). Under Reagan's "strategic program" the first squadron of 15 such aircraft is to be activated in 1986. Total cost of the B-1B program will exceed 25 billion dollars.*

### **EDWARDS AIR FORCE BASE**

Here in the great Californian desert the arms industry finds its fulfilment. Everyone is dedicated to perfecting the military



planes, undisturbed by liberal politicians or social priorities. Brisk young air force officers show off the fine points of the brand-new fighters and bombers basking under the desert sun. There are rows of Northrop Tigers, painted in different colours for their customer-countries. There are F15 Eagles, flown up from McDonnell Douglas in St. Louis, with long noses like elegant predators. And in pride of place is the controversial [Rockwell B1 bomber](#)<sup>11</sup>. An eager air force spokesman briefed me about its achievements; how it could fly supersonically at 50,000 feet, and then dive down to fly subsonically at one hundred feet, and unload its nuclear bombs in a few seconds. The bombardier, he explained, was called "the offensive weapons system operator". Disconcertingly the giant bomber was more beautiful than any civil airliner. With its sleek lines and curvaceous body, its jet engines tucked neatly under its wings, it lay on the tarmac, shimmering in its white paint like a magnificent fish. The need for the [B1](#) bombers was being questioned by many military experts in the summer of 1976: for nuclear warheads could be delivered far more swiftly and certainly by missiles, and by July 1976 the cost of 244 bombers was reckoned at \$ 88 million a piece. (By 1983 this price had risen to \$400 mill, a piece).

But in this outpost, surrounded by its [admirers](#) and [dependents](#), the [B1](#) had generated a whole way of life around it where its demise was scarcely imaginable. And there was another critical reason for continuing the project, my guide was quick to point out: it would provide at least 20,000 jobs for California. The passionate involvement of the air force seemed to create its own logic in the desert. It was only over in Los Angeles, with all its acute social problems, that the cost seemed prohibitive (...).

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11 Now Boeing.

## SILICON VALLEY

In the San Francisco area the innocent visitor is surprised to discover that here too the arms business lies just under the surface: that Santa Clara county has more defence contracts than any other county in the United States, amounting to around three billion dollars for 1977 or 3.5 percent of the total, and that Stanford University has been the hub of a network of plants and laboratories which have helped to revolutionise electronic warfare. The professors of electronics have set up their own lucrative companies in the industrial estates, and big corporations have moved in to make use of the university's brains: the result has been a military-scientific complex which rivals Massachusetts. Along Route 101 out of Stanford the serious business reveals itself in the rows of electronics companies, neat and hygienic, which have given it the name of Silicon Valley. Much of their business is very peaceful, turning out pocket calculators or digital watches. But arms are the backbone of their prosperity. By far the biggest employer in Santa Clara county is Lockheed: in the town of Sunnyvale, just off Route 101, Lockheed employs 15,000 people, many of them making the Trident missiles for nuclear submarines, a contract whose value was estimated at \$ 1.6 billion for 1977.

*Anthony Sampson, author of The New Anatomy of Britain and several other studies of world power structures.*

### **Comprehension:**

1. Examine the first four lines in order to determine the author's attitude.
2. Why should "liberal politicians and social priorities" disturb the arms industry in the desert?
3. What is characteristic about the air force officers that the author meets during his guided tour ?

4. "Disconcertingly, the giant bomber was more beautiful...". What was disconcerting, who experienced this, and why?
5. If the military experts agree that the B1 bomber is made obsolete by advanced new missiles, what factors may explain the fact that it is now being produced - at a cost of about D.kr: 1000.000.000 a piece?
6. How do the professors mentioned in the title come into the picture ?
7. And who are the perfectionists ?

## NEWSPEAK AND NUKESPEAK

### NEWSPEAK

According to George Orwell "political speech and writings are largely the defence of the indefensible". This he called **newspeak**, nowadays we should call it **nukespeak**, with a word coined after his model. In the appendix to his novel *Nineteen Eighty-Four* he describes how the authorities controlled not only language, but thought through the medium of newspeak. He says:

"The purpose of newspeak was not only to provide a medium of expression for the world-view and the mental habits proper to the devotees of Ingsoc (English Socialism as presented by Orwell), but to make all other modes of thought impossible.....Its vocabulary was so constructed as to give exact and often very subtle expression to every meaning that a Party member could properly wish to express, while excluding all other meanings ...This was done partly by the invention of new words, but chiefly by eliminating undesirable words and by stripping such words as remained of unorthodox meanings, and so far as possible of all secondary meanings whatever. To give a single example : the word free still existed in Newspeak, but could only be used in such statements as 'This dog is free from lice' , or 'This field is free from weeds'.

It could not be used in its old sense of 'politically free' or 'intellectually free', since political and intellectual freedom no longer existed even as

concepts, and were therefore of necessity nameless.

.. Newspeak was designed not to extend, but to diminish the range of thought."

The **A vocabulary** consisted of the words needed for the business of everyday life....It was composed almost entirely of words that we already possess - words like hit, run,dog, tree... - but their number was extremely small.

Examples of **A vocabulary**:

speedful	:rapid
speedwise	:quickly
uncold	:warm
pluscold	:very cold
goodest	:best
mans	:men

The **B vocabulary** consisted of words which had been deliberately constructed for political purposes :words, that is to say, which not only had in every case a political implication, but were intended to impose a desirable mental attitude upon the person using them.

Examples of **B vocabulary**:

goodthink	: orthodox belief
goodsex	: chastity, marital sex for procreative purpose only
joy camp	: forced labour camp
Minipax	: Ministry of War
unperson	: victim of purge
crimestop	: the faculty of stopping short at the threshold of any dangerous thought
doublethink	: the power of holding two contradictory beliefs in one's mind simultaneously, and accepting both.

## **NEWSPEAK:**

times 3.12.83. reporting bb  
dayorder doubleplusungood  
refs unpersons rewrite  
fullwise upsub antefiling.

## **OLDSPEAK:**

The reporting of Big  
Brother's Order of the Day in  
The Times of December 3rd  
1983 is extremely unsatis-  
factory and makes references  
to non-existent persons.  
Rewrite it in full and submit  
your draft to higher  
authority before filing .

## **NUKESPEAK**

To coin the term 'nukespeak' itself is to make three main claims. First, that there exists a special vocabulary for talking about nuclear weapons and war, secondly, that this variety of English is not neutral and purely descriptive, but ideologically loaded in favour of the nuclear culture; and thirdly that this matters, in so far as it possibly affects the way people think about the subject. (...)

### **The Birth of the Bomb**

Many people, scientists and non-scientists alike, were over-whelmed and disturbed when atomic explosions destroyed Hiroshima and Nagasaki. But after the explosion, what sense did they and the general public make of the experience? A writer in The Listener recently stated the question like this: "I do not see how any human being whose intelligence and sensibilities have been shaped by traditional facts and values could possibly understand the nature of these unnatural other-worldly weapons." One explanation - the one I want to outline here - is that it is precisely certain traditional patterns of thought which make it possible to come to terms with, if not strictly 'under-stand', nuclear explosions. We have traditional ways of talking, myths, symbols,

metaphors, which provide safe pigeon-holes for what is 'unnatural' or 'other-worldly.'

This is a dangerous tendency in human culture, one which perhaps helps to explain the spell-bound ambivalence of our attitudes towards the bomb. [Joseph Rotblat](#), one of the physicists connected with the atomic bomb project, points to a related tendency:

"While everybody agrees that nuclear war would be an unmitigated catastrophe, the attitude towards it is becoming similar to that of potential natural disasters, earthquakes, tornadoes, and other Acts of God..."

Robert Oppenheimer, the director of the first tests, on beholding the monstrous cloud, recalled this line of mythology: 'I am become [Death](#), the shatterer of worlds'<sup>12</sup>. (...)

The press did not in fact, in the first instance, report Hiroshima and Nagasaki direct; it reported the official utterances about them. The speeches of [Truman](#) and [Churchill](#) on August 6, 1945 were quoted verbatim, but they also provided the core of the bomb rhetoric developed in the papers. Two key passages in Truman's speech were seized upon: (...)

"It is an [atomic bomb](#). It is the harnessing of the basic power of the universe..." and

"The force from which the sun draws its power has been loosed..." The key words here seem to have triggered off a whole series of associations which have their basis in the language of religion and myth. [Churchill](#), reported verbatim in The [New York] Times of August 7, provides an example of this:

"By God's mercy British and American science outpaced all German efforts.... This revelation of the secrets of nature, long mercifully withheld from man, should arouse the most solemn reflections in the mind

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12 Original quote: "We knew the world would not be the same. A few people laughed, a few people cried, most people were silent. I remembered the line from the Hindu scripture, the Bhagavad-Gita. Vishnu is trying to persuade the Prince that he should do his duty and to impress him takes on his multi-armed form and says, "Now, I am become Death, the destroyer of worlds." I suppose we all thought that one way or another."

-J. Robert Oppenheimer

and conscience of every human being capable of comprehension. We must indeed pray that these awful agencies will indeed be made to conduce to peace among the nations, and instead of wreaking measureless havoc upon the entire globe, they may become a permanent fountain of world prosperity".

### **How do the Rhetorical Tricks Work?**

Churchill does not refer directly to the event that inspired the speech, but instead to the 'revelation of the secrets of nature'. In the next few days it became commonplace to describe the development and dropping of the bomb in such a way as to make it a natural (or supernatural) process somehow outside human control. That perspective is underlined by a grammatical tactic - using the passive construction with no mention of the 'agent'. The 'secrets of nature' have been 'long withheld'. By whom? When 'agents' are omitted, readers have to make inferences from the context. Here they are strongly encouraged (by words like 'pray' and 'revelation') to suppose that God was the 'agent'. Thus one is left with the supposition that men were not really responsible for the invention and use of the atomic bomb; it was given to them by some outside force. This is not all. In Churchill's phrase "will be made to conduce to peace", there is no clear reference to who will do the making (God again ?). Moreover, the atomic bombs themselves, and not humans are presented as 'agents' of peace and destruction. It is the bombs that 'conduce to peace' or 'wreak havoc'.

### **The Naming of the Bomb**

I want to suggest that the publicly known nicknames given to weapons systems are a symptom of their progressive assimilation into our culture. The way they do it is something like this. There are deeply ingrained patterns of symbolic thought which are used to organise, classify and 'normalise' our experience of the world. Such patterns are present in mythology, religion, and many other domains. The early atom-test scientists under Oppenheimer referred to the first atomic device as 'the gadget'..a 'name' that made the momentous experiment feel familiar, homely, and useful. And when the 'gadget' was accepted into the life of the nation in the form of a usable bomb, it acquired a

name. The uranium bomb detonated over Hiroshima was called 'Little Boy', the plutonium bomb dropped on Nagasaki, 'Fat Man'. They were then familiarised as amiable human stereotypes. But that was before the deed was done. After the event there were new naming tendencies. The 1960's saw 'Little Boy' promoted to 'Corporal', and later to 'Sergeant' (both tactical missiles). At about the same time 'Honest John' also appeared in Europe.

Most NATO weapons are given two names. [LGM-30/G](#) (an inter-continental missile) is also called [Minuteman](#), for example. The word Minuteman may not mean much to a European.

To an American patriot it refers to the heroic militiamen of the American Revolutionary War who were trained to turn out at a minute's warning. Thus this inconceivably devastating weapon is given a place in national folklore. And if you didn't know about that, there is also the odd fact that the name of this particular missile also spells 'minute' (small) man', odd, because that too scales down the enormous destructive power of this weapon, and recalls 'Little Boy'.

The imposing classical names that accommodate our weapons of mass annihilation implant them in traditional culture. There are the gods of the sky, thunder, blinding light, who are both creators and destroyers. Polaris (SLBM) is the '[stella polaris](#)', the pole star. '[Thor](#)' (an American IRBM) the Scandinavian god of thunder, '[Jupiter](#)' (another IRBM) the Latin sky-god. The gods of the depths are represented in names like Poseidon (another SLBM) and Pluton (God of earthquakes and ruler of the underworld, respectively).

A weapon like the neutron shell has been christened in various ways. The term 'enhanced radiation weapon' is a rather unsubtle euphemism, and when Reagan's decision to deploy it in Europe was announced in 1981, the popular British press did its best to justify it. They did so in a way very similar to the naming processes we have discussed.

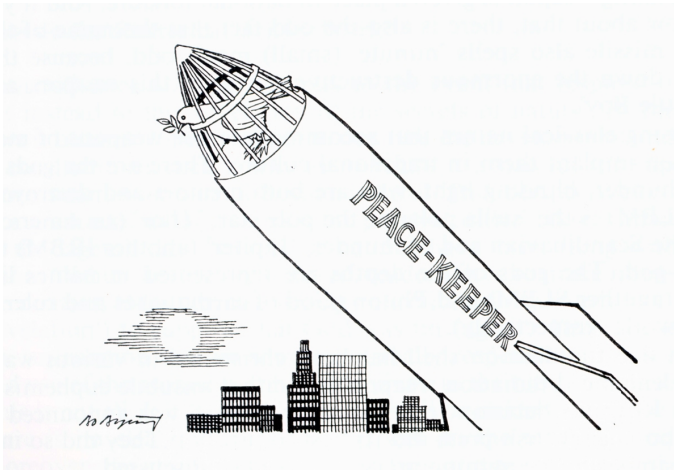
*The Sun* (Aug. 10, 1981) said: 'It (the [neutron weapon](#)) will give Europe a shield...' Who would object to a purely defensive shield? *The Daily Express* in a piece entitled 'This Chilling but Vital Evil', shows how false arguments can be spun out from logically weak, but emotionally powerful analogies. The writer is seeking to rebut the charge that the neutron bomb is a moral evil..because it kills people but leaves buildings largely intact. Here is his response:



"Well, so does the bow and arrow. The neutron weapon is for Western Europe today what the English long bow was for Henry V and his army at [Agincourt](#) in 1415. It is a weapon of chilling efficiency and destructive power which counterbalances the enemy's superiority in sophisticated armour."

There is a crude logic here which goes something like this. The neutron weapon destroys people not property. The long bow destroys people not property. Therefore the neutron weapon is a long bow. But the long bow is good (and picturesque). Therefore the neutron weapon is good. There is then a trend in the 'naturalisation', or rather 'acculturation' of the nuclear phenomenon. Instead of being symbolically classified as objects of supernatural awe, nuclear weapons now tend to be classified as safe and usable instruments. This shift has clearly accompanied the gradual shift in strategic doctrine making the actual use of nuclear weapons in war conceivable and acceptable.

*Paul Chilton, lecturer of Linguistics at Warwick University, England.*



## VOCABULARY OF NUKESPEAK

### NUKESPEAK:

capability  
clean bomb

collateral damage

counterforce

countervalue

deterrent

dull sword

hardware  
logistics  
mirving

payload

Peacekeeper

reconnaissance by fire

strategic sufficiency

Star Wars

### OLDSPEAK:

weapon

the neutron bomb or any other  
which has reduced blast and  
heat effects

civilian casualties resulting  
from nuclear attack on military  
installations

nuclear attack aimed at military  
installations

nuclear attack aimed at civilian  
population centres

terror weapon: e.g. nuclear  
weapon

"minor" accident involving a  
nuclear weapon

arms like tanks, missiles

preparations for war

covering enemy continent or  
country with nuclear version of  
shotgun: hitting lots of targets  
at the same time, (cp. ill. p. 14)

bombs

The MX missile, carrying 10  
warheads, each capable of  
destroying 10 major cities.

spraying an area with machine-  
gun fire

destruction of military targets  
as well as large areas of popu-  
lation

project designed to carry arms

	race of superpowers into space at enormous costs. (Also title of world wide box-office film success)
surgical strike	precision bombing
100% mortality response	everybody dead

### ACRONYMS:

PAL <sup>13</sup>	Permissive Action Link (an electronically controlled system of interconnected locks used to prevent the unauthorized launching of an intercontinental ballistic missile)
MAD	Mutually Assured Destruction (also name of internationally well-known humorous <a href="#">maga-zine</a> , specializing in 'black humour')
<a href="#">NUTS</a>	Nuclear War Theories
<a href="#">TEMPO</a>	Technical Military Planning Operation (a 'think tank' established by the private corporation General Electric)
ET	Emerging Technology. (New technology, esp. in weapons design. Also title of <a href="#">film</a> about innocent being from another planet, world-wide box-office success)

### Comprehension:

1. Explain how a kind of 'thought control' is exercised through words like those listed in Vocabulary A and B.
2. Are the words listed as Nukespeak coined in accordance with the principles in Orwell's Newseak?

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13 Or Prohibited Action Link: A device included in or attached to a nuclear weapon system to preclude arming and/or launching until the insertion of a prescribed discrete code or combination. It may include equipment and cabling external to the weapon or weapon system to activate components within the weapon or weapon system.

3. Why is it dangerous if nuclear war is conceived as an 'Act of God'?
4. Explain Paul Chilton's distinction between 'coming to terms with' and 'understanding' the nature of nuclear explosions (cf. [Beyond Understanding](#)).
5. Explain the manipulative effect of using the passive voice in Churchill's speech
6. Is the neutron shell best described as a 'shield', a 'moral evil', or something comparable to the bow and arrow? Retrace the argumentation in the text.
7. What is meant by 'the acculturation' of the nuclear phenomenon?
8. Try to find examples of Nukespeak in other texts in this anthology. (Use Synopses to find likely texts).

## **THE IDEAL DEATH EXHIBITION**

Martyn Harris reports from an arms exhibition in *The New Statesman* 25 June 1982. But it soon appears that no one here is actually in the business of making weapons. They all fabricate defence systems, and cost-effective deterrents, and indirect fire capabilities. They don't even make those for the most part, but just eeny-weeny little bits of them that hardly matter anyway. And they can hardly worry about whom they sell them to, when it takes two years to complete a contract, and we could be at war with anyone after two years, couldn't we?

## **BABY BREAKER**

"Perhaps if, after all, we decided we could not do without nation states or without weapons, we could at least hedge them about with fearsome language to terrify us out of using them so often. Instead of the bland euphemisms for slaughter and the self-abasing worshipful words for machines like 'Rapier', 'Challenger', 'Sea Wolf', 'Chieftain', we could call them what they are. We could call them mutilator, and blinder, and flesh tearer and bone crusher, or ball smasher or baby breaker..."  
New Statesman, 25 June 1982.



F 16 FIGHTER-BOMBER

## **PRAYER FOR F16**

When the first F16 rolled out of the Fort Worth plant on October 20th 1976 it was blessed by a special prayer specially written for the occasion:

"Oh God of nations and of men, be witness we pray thee to the firm intent that this plane be a weapon solely of defence. Wilt thou therefore bless this plane's purpose, that it may deter or quickly overcome aggression, and that it may truly become an instrument of peace: more ploughshare than sword, more pruning-hook than spear. We thank thee for the excellent minds and energy that brought this project to fruition, for the useful competition out of which it was born, and for the mutual co-operation which made its production possible." Quoted from *The Sale of the Century*, (Granada / Kaleidoscope.)

## Comprehension:

1. Translate and explain the first two and a half lines of the prayer.
2. Who are the "we" in the text?
3. Is the prayer read aloud? If so, who recites it?

Suggestions for further individual/group/class work:

1. Compare Prayer for F 16 and Brian Morris: [Genesis](#).
2. Include the two readers' letters in order to discuss the various aspects of blasphemy.
3. Suppose this Prayer for F16 had appeared in your local newspaper. Write a letter to the editor stating your personal opinion and attitude.

..

"Let him who desires peace, prepare for war." — [Vegetius](#)

"To be prepared for war is one of the most effectual means of preserving peace." — [George Washington](#)

"Once a nation bases its security on an absolute weapon, such as the atom bomb, it becomes psychologically necessary to believe in an absolute enemy." — [Patrick Blackett](#)

"Some people used to claim that A-bombs, numbered in the thousands or tens of thousands, were beyond our reach. I am here to report to the Senate and the American people that the atomic bottlenecks are being broken. There is virtually no limit and no limiting factor upon the number of A-bombs which the United States can manufacture, given time and given a decision to proceed all out. . .

"We must have atomic weapons to use in the heights of the sky and the depths of the sea; we must have them to use above the ground, on the ground, and below the ground. An aggressor must know that if he dares attack he will have no place to hide. .

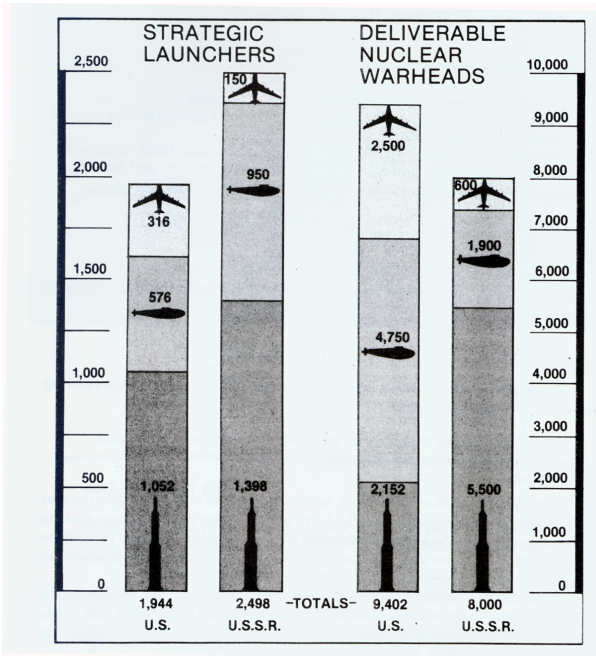
*"Mark me well: massive atomic deterring power can win us years of*

*... grace, years in which to wrench history from its present course and direct it toward the enshrinement of human brotherhood. "*

— *Senator Brien M. McMahon*

**... While the era of US superiority is long past, parity — not US inferiority — has replaced it, and the United States and the Soviet Union are roughly equal in strategic nuclear power.**

— US Dept. of Defense, [Annual Report](#)<sup>14</sup>, 1982



**1982: "ROUGH EQUIVALENCE" OF U.S. AND U.S.S.R. STRATEGIC NUCLEAR FORCES.** U.S. leads in deliverable warheads, accuracy, and survivability. U.S.S.R. leads in number of launchers and total megatons (Time, March 29, 1982, reported U.S.S.R. 7,868 megatons to U.S. 3,505). If British and French weapons were added, Western forces would increase by 144 submarine missiles, 150 bombers, and 18 land-based missiles. (Chart

<sup>14</sup> The Annual Report to the President and the Congress.



adapted from diagram in N.Y. From *Freeze it*, issued by  
Times, March 21, 1982. Norwich Peace Center, Vt. USA

## THE MILITARY-INDUSTRIAL COMPLEX

The 'complexes' we are dealing with in this chapter are made up of four extremely powerful 'states-within-the-state' in the great powers of the world : *the military, the arms industry, the ministries of defence and the scientific establishment*. They exist in the USSR as well as in the USA, as they do in France, Great Britain - and to a minor degree in e.g. Sweden and Denmark.

Their role in the armament - disarmament process may be gathered from this quotation from a UN pamphlet : "In approaching disarmament, the main problem is the sheer size and complexity of the arms race. With more than \$1 million spent every minute, it has gathered a momentum that is difficult to grapple with".

In other words, the enormous financial interests tied up in the development, production, and sale of arms make it very difficult to reverse the growth in budgets and resources devoted to arming the world against - the world.

In the following texts, various aspects of the MIC - as it will henceforth be called - are elucidated by critics as well as members and supporters of the MIC.

[President Eisenhower](#), who was Commander-in-Chief of the Allied Forces in Europe from 1942-1945 was [later](#)<sup>15</sup> elected President of the United States. In 1961<sup>16</sup>, after two terms of office, he gave his Radio and [Television Farewell Address](#) to the American People. In this the inside knowledge he had obtained of the workings of the MIC made him utter some words of warning:



## UNWARRANTED INFLUENCE?

*Extract from Radio and Television Farewell Address to the American People 1961*<sup>17</sup>

A vital element in keeping the peace is our military establishment. Our arms must be mighty, ready for instant action, so that no potential aggressor may be tempted to risk his own destruction. Our military organization today bears little relation to that known by any of my predecessors in peacetime, or indeed by the fighting men of World War II or [Korea](#)<sup>18</sup>. Until the latest of our world conflicts, the United States

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15 In 1952.

16 On January 17<sup>th</sup> 1961. The portrait of Eisenhower on this page is from 1945.

17 Hear the complete address [here](#).

18 In [October] 1957 the Soviet Union sent the first-ever satellite, Sputnik into orbit. The shock in America was profound. It was generally agreed that Russian technological know-how, and development had been grossly underestimated. As a direct result of the Sputnik, [NASA](#) (National Aeronautics and Space Administration) was set up in 1958.

The 'missile gap' also accelerated the arms build-up in other fields (ICBMs, nuclear submarines, fighters and bomber-fighters.)

had no armament industry. American makers of plowshares could, with time and as required, make swords as well. But now we can no longer risk emergency improvisation of national defence; we have been compelled to create a permanent armaments industry of vast proportions. Added to this, three and a half million men and women are directly engaged in the defence establishment. We annually spend on military security more than the net income of all United States corporations.

This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence - economic, political - even spiritual - is felt in every city, every State House, every office of Federal Government. We recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society. In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.

We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defence with our peaceful methods and goals, so that security and liberty may prosper together.

### **Comprehension:**

1. "We have been compelled to create...." Compelled: by what or by whom? (cf [Mullins](#).)
2. What is Eisenhower's attitude to the development of the military industrial complex?
  - a. What does he like about it?
  - b. What does he dislike about it?
  - c. What is he afraid of?
3. Why do the words of President Eisenhower carry particular weight in these matters ?
4. What solution does he suggest to the problems he sees?

## A Militarized Society

*Member of President Eisenhower's and [President J.F. Kennedy's Science Advisory Committee](#)<sup>19</sup>, Jerome B. Wiesner speaks out.*

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Despite President Dwight Eisenhower's 1961 warning about the growing influence of the military-industrial complex in our society, it has grown even more powerful in the years since. Eisenhower's message reflected his frustration with his inability to control the combined pressures from the military, industry, Congress, journalists, and veterans' organizations for procuring more weapons and against his efforts to seek accommodations with the Soviets.

As a member of Eisenhower's Science Advisory Committee, I saw first hand how individuals from government and military industries collaborated with members of Congress to defeat the president's efforts. They killed the nuclear-test-ban negotiations with arguments ranging from the need for the neutron bomb and peaceful nuclear explosions to the possibility of Soviet cheating by testing behind the moon or even the sun. Eisenhower cancelled the B-70 bomber and then reinstated it after being subjected to enormous pressure by the political leaders of the Republican Party. Exaggerated estimates of the Soviet nuclear bomb stockpile and delivery system strength were also used several times to justify unneeded U.S. strategic forces.

President John Kennedy had to contend with similar opposition when he continued Eisenhower's efforts to achieve a halt to nuclear testing. In fact, opposition to his efforts was much more intense than that faced by Eisenhower, because it appeared that Kennedy's efforts just might succeed. As Kennedy's special assistant for science and technology, I also saw how pressure from Congress, the Defense Department, and outside groups caused Kennedy to build a much larger Minuteman missile force than was necessary, even after reconnaissance made it clear that the suspected missile gap did not exist.

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<sup>19</sup> Shortly after his re-election in 1972, President Richard Nixon eliminated [the President's Science Advisory Committee](#).

The pressures continued on subsequent presidents.

Such pressure groups no longer need to operate on the president. President Ronald Reagan not only accepts the ideas of the groups that Eisenhower warned against, he has become their most articulate spokesman, espousing an enormous build up in U.S. military power—especially nuclear fighting power—while making a shambles of arms control efforts. Reagan's reelection is an indication that the militarization of U.S. society is proceeding with the complicity, if not the overt support, of ordinary citizens.

The history of the B-1 bomber is another case in point.

After the project was shut off by the Carter Administration, funds from the space shuttle and other government projects were fraudulently diverted to keep the B-1 alive. A story in the April 7, 1984, San Francisco Examiner details how the manufacturer then scattered contracts so widely that almost every state and hamlet in the country had a stake in the B-1's future. Even though it is generally agreed that the B-1 is unnecessary, the campaign succeeded.

The contracts were worth an average of \$700 million per state. The states of the 20 senators who lobbied hardest for the aircraft were scheduled to get sums ranging from \$1 to \$9 billion. Even more disturbing is the fact that labor unions and chambers of commerce lobbied vigorously for this marginally useful aircraft at a time when budget deficits were destroying the U.S. economy and the infrastructure of American society. This irrational behavior is only possible because we, the citizens of the nation, permit it. It is no longer a question of controlling a military-industrial complex, but rather, of keeping the United States from becoming a totally military culture.

MORE THAN 35 years of Cold War language and politics have created a situation in which it is difficult to talk rationally about how we arrived at the present impasse. A combination of Newspeak words, false information, half baked ideas about successful preemptive attacks and winning nuclear wars, and clairvoyant projections of Soviet forces and objectives have obscured rational alternatives to the arms race. In particular, the use of worst-case analysis, supported by controlled leaks of secret information, has manipulated Americans into denying responsibility for the arms race and believing that the Soviets are relentless and reckless aggressors. As a result, ordinary citizens

conclude that they can do nothing to stop the catastrophe they see coming.

A classic case is the "bomber gap" of the 1950s. Shortly after the United States adopted Secretary of State [John Foster Dulles's](#) 1954 policy of massive retaliation, the U.S. intelligence community began to suspect that the Soviet Union was building a large intercontinental bomber force, and it sounded an alert. It predicted that the Soviet Union would have several hundred intercontinental and shorter-range bombers, a force that could easily reach overseas U.S. bases and possibly even the continental United States in one-way missions. In response to this, the United States began producing a truly intercontinental bomber, the [B-52](#).

In fact, however, while the Soviet Union did have a substantial force of [TU4](#) medium-range bombers, it lacked an overseas base-complex from which to stage them. Its nuclear bomb supply was also small. In addition, it became evident in the mid-1950s that the Soviet Union was not creating a long-range bomber force on the scale previously feared, and the estimates of its threat began to shrink. By 1958 more sophisticated U.S. reconnaissance showed the Soviet force to be very small, about 100.

I used to believe that this misestimate of Soviet bomber capability was the result of faulty intelligence. Careful examination of the facts now makes it seem more likely a case of deliberate deception.

Interestingly, at no time after the truth was discovered did the creators of those distorted predictions show any concern about the unnecessary buildup they had stimulated or propose that the United States revise its objectives. Recently I spoke to an individual who had been one of the most articulate alarmists about the bomber gap and asked him why he had not revised his view of the Soviet threat when the facts became known. He answered that he had always been certain that they would eventually present a nuclear threat to the United States, and he didn't want to make it too easy for them. Even now he is not willing to admit that our enormous buildup caused the Soviets to follow suit.

Our truly democratic nation has been overtaken by a social cancer from which only mass understanding and action can save it. Only through the continuing involvement of great numbers of informed and dedicated individuals do we have any hope of rescuing ourselves

and the rest of humanity from ultimate destruction.

I am often told that this subject is too complicated for average people to understand, and so even though they are frightened by what they see and hear, they have no choice but to accept what the "experts" say. These people are wrong. These issues can indeed be understood by anyone who is willing to make a sustained effort to do so. Just a few hours of study and discussion a week can make a person knowledgeable, if not expert, and a truly knowledgeable citizenry will lead to sounder national policies.

It is even more important to realize that there are no experts on nuclear war. No one knows how to use nuclear weapons. While there are thousands of experts on technical matters and on military hardware, on the critical issues of strategy, tactics, deterrence, and war-winning there are truly no experts. None!

It is often suggested that secret information exists that would argue against a nuclear freeze or a test ban or some other logical arms-limitation measure. But there are no secrets on the vital issues that determine the course of the arms race. Each citizen should realize that on such critical issues as what constitutes a deterrent and how many nuclear weapons are enough his or her judgements are as good as those of a president or secretary of defense, perhaps even better since the layperson is not subject to all of the confusing pressures that influence people in official positions. It is important for citizens to realize that their government has no monopoly on wisdom or special knowledge that changes the common-sense conclusion that nuclear weapons have only one purpose—to prevent their use—and that can be accomplished with a small number of secure weapons on each side.

But realization is not enough. It must become informed conviction based on personal study. It is encouraging to see that a large number of people recognize this. In recent years there has been a growing involvement of people in all walks of life in the efforts to find alternate national security measures. There is an explosion of antinuclear groups whose strength flows from an inner conviction that the present course is wrong and dangerous. Perhaps most important of all, we are witnessing the emergence, as [dissenters](#), of increasing numbers of former insiders and experts whose professional loyalty to the Establishment has, until recently, made them reluctant to speak out against policies that worried them. More and more civilian and

military officials of the past are expressing disagreement with current national defense policies. This development is very important. Concerned citizens need the information and intellectual support for their own common sense and intuitions that such insiders provide.

*Jerome B. Wiesner is president emeritus and institute professor at the Massachusetts Institute of Technology in Cambridge.*

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### **Comprehension:**

1. By what arguments were the negotiations for a Nuclear Test-Ban "killed"?
2. What is the "missile gap", and what role did it play in the arms race during the administration of John Kennedy?
3. Tell the "story" of how the B-1 bomber was reinstated after all.
4. What are, according to Wiesner, the reasons why rational alternatives to the arms race have been obscured?
5. Tell the "story" of the "bomber gap" in the 50's -and the people who invented the notion.
6. What is the "social cancer" Wiesner is talking about ? - and how may it be overcome?
7. Wiesner calls the U.S. a military culture. How far - or otherwise - does this apply to countries in the Eastern bloc? Give examples and discuss, e.g. the part of GNP for military purposes, human rights, personal freedom, objection to military service, education, peace movements.



# THE DYNAMICS OF THE ARMS RACE

The armament process is such a complicated and complex phenomenon that any single or simple aspect will fail to explain it. It is, of course, directly related to historical conflicts, wars, the foreign policies of the major powers, and the international economic situation. But two main theories about the driving forces behind the armament process are by and large recognized.

## **Exterior forces:**

*The action-reaction theory:* When **A** gets a new weapon, **B** has to acquire a corresponding one, or an anti-weapon. This theory focuses on the enemy, and what he is - or might be - doing.

## **Interior forces:**

*The workings of the Military-Industrial Complex (the MIC) in the USA, and the Military-Bureaucratic Complex (the MBC) in the USSR.*

*The MIC* in the USA is made up of four vested interests, which share the collective interest in increasing military expenditure, but also compete with each other about their individual shares:

The military.

The arms industry.

The administration in Washington.

The scientific establishment.<sup>20</sup>

The combined influence of these interests is not to be seen as some sort of conspiracy; rather, it is a product of the particular way in which the social and economic structure places power and the making of decisions in the hands of the representatives of the interests involved in the development and production of arms. The crucial question is whether it is possible to identify any primary motivating factor, a basic cause, which triggers off the escalating process of armament. It seems that in each of the spheres of interest mentioned, we find built-in factors that tend to intensify and perpetuate the arms race.

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<sup>20</sup> and the mass media.

## **The military**

Within the armed forces the armament process is closely linked to prestige and political influence - so the army, the navy and the air force compete for their share of the military budget, which puts pressure on members of Congress to find money for research and development work and the production of new weapons.

## **The arms industry**

and to some extent, the civilian ancillary industry, welcomes this competition. It gives a dynamic impetus to research and development work (R&D work) in their field, more or less state subsidized. They get access to the latest technology, and they are in a position to obtain reasonably secure contracts on good terms. In other words, they prosper.

In addition, they may even argue that they help create new jobs (though it is well documented that investment in civilian production creates more jobs).

## **The administration in Washington**

- can use the armament process as a means of regulating booms and slumps in the general economy of the nation, or as an element in its technological policy, or it may engage in weapons export and thus improve the trade balance - apart from the strategic aims that weapons export may serve.

## **The scientific establishment**

About 50% of the world's scientists and engineers are engaged in the manufacture or development of weapons; working in privileged, highly paid jobs where they have access to the most advanced technology. Thus they will have a direct personal interest - not as individuals, but rather as members of huge institutions with their own *raison d'etre* - in maintaining the arms race.

*The four interests* will join forces in countering disarmament measures

and attempts at converting arms industries into non-military production. The MIC tends to become a state-within-the-state, which to a large extent eludes political and popular control and criticism by diverting the issues that may be raised to general aims such as security and national interest policies.

### **The Major Breakthroughs in Military Technology since 1945**

	USA	USSR
the A-bomb	1945	1949
the H-bomb	1953 (1954)	1954 (1955)
long-range bombers	1953	1957
intermediate-range missiles	1953	1959
tactical nuclear weapons	1955	1956
ICBMs	1955 (1958)	1957
nuclear-powered submarines	1956	1962
satellites	1958 <sup>21</sup>	1957
SIBMs	1959	1968
ABMs	1960	1961
MIRVed missiles	1964 (1966)	1972 (1968)
Cruise missile, new generation	1976-	
MARVed missiles	1985-	

In the USA we find a sort of state capitalism where thousands of contractors and subcontractors are working for the Pentagon, who is the sole customer. In this market there is no free competition, contracts are "shared out" to companies, and in the absence of the cost-restricting mechanisms of the "free market", contractors are liable to exceed original cost calculations and obtain special subsidies and higher prices - in the interest of national security. Production costs of weapons systems often prove to be 2-3 times higher than estimated when they were first granted by Congress.











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21 The first US satellite [Explorer I](#) was sent into orbit in January 1958!

# The military-bureaucratic complex in the USSR

In the Soviet Union the MBC is made up of a similar combination of military, industrial and bureaucratic elements. Here the PARTY and the PLAN are the decisive factors, not the mechanisms of the market, or company profits. There is a close direct control by the Politbureau of the military establishment, arms production, and research and development work. The dynamics also of the Soviet system are based on competitive principles: each branch within the military-industrial establishment is interested in justifying its own existence and in expanding its activities. The military production has top priority, and the military establishment is beyond democratic control and criticism by the general public. Through conscription, a militarist educational system, and a complete state control of information on all matters of defence, the MBC is used as just another tool in the political and social control of the citizens.

## INITIATIVE IN DEVELOPING NEW WEAPON SYSTEMS

USA	USSR
NUCLEAR WEAPONS	
 mid-1940s (used in August 1945)	 late 1940s
INTERCONTINENTAL STRATEGIC BOMBERS	
 mid-1950s	 late 1950s
NUCLEAR-POWERED SUBMARINES	
 mid-1950s	 late 1950s
NUCLEAR-POWERED AIRCRAFT CARRIERS	
 early 1960s	none
MULTIPLE INDEPENDENTLY TARGETABLE RE-ENTRY VEHICLES	
 late 1960s	 mid-1970s
NEUTRON WEAPONS	
 late 1970s-early 1980s	none

## Comprehension:

1. One of the surveys above was produced by peace researcher Jan Oberg in 1983, the other was taken from a USSR publication. Which is which?
2. How does the information they both give compare with the action-reaction theory?

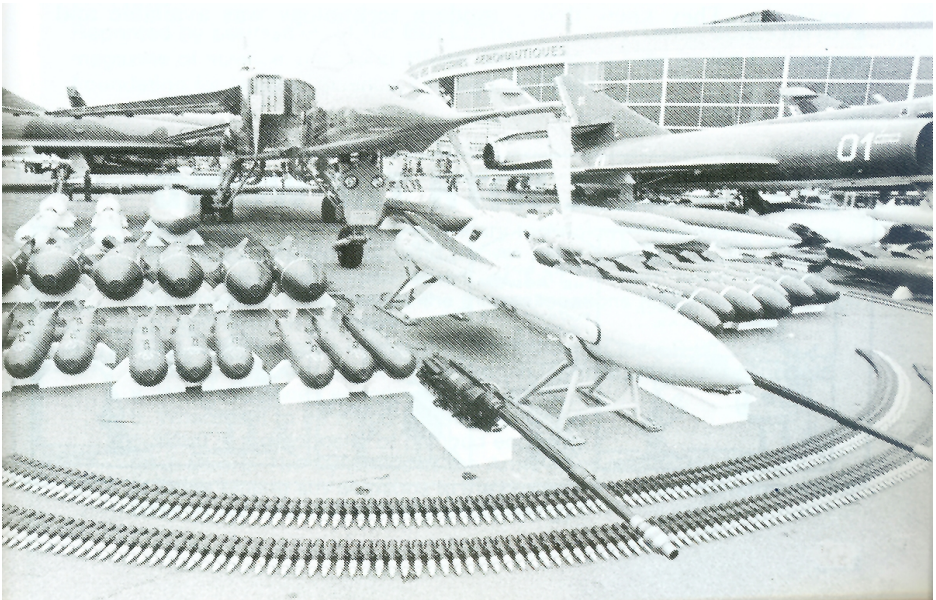
Concerning the roles played by the 'complexes' of the two superpowers, Rudolf Bahro, East German expert, now resident in West Germany, says:

"The MIC in the USA has its counterpart in the MBC in the USSR, and together with the security organisations, the CIA and the KGB, they both have an immensely harmful effect on the internal social and economic progress in the two states. Changes in the established political systems of both Capitalist and non-Capitalist countries are therefore a necessary condition for demolishing the close-knit circles of armament planners on the one hand, and disarmament diplomats on the other, in order that a genuine mutual disarmament process may get started". The MIC and the MBC share the quality of being both active and reactive. Current research seems to indicate that the Soviet complex is generally more reactive, while that of the USA is active. In relation to a specific weapons system this distinction has to be made from case to case and from period to period. The crucial point is that in both countries we find inner dynamics which work together against the disarmament process and democratic control of defence policies. These driving forces are pursuing their own elitist goals at the expense of the well-being of their respective peoples - and of world security.

Jan Oberg. *Danish peace researcher, Doctorate from Institute of Peace Research, Lund University, Sweden. - Member of Danish Government Committee on Security and Disarmament.*

## Comprehension:

1. Name and describe the two main theories about the armament process.
2. "The MIC in the USA is made up of four vested interests". What is a vested interest? Name the four of them.
3. According to Oberg, what is the primary motivating factor, the basic cause behind the process of armament?
4. Compare the four "interests". What do they have in common? Where do they differ from each other?
5. Oberg claims that the MIC becomes a-state-within-the-state. What is his line of argument?
6. Oberg even maintains that there is a sort of "State Capitalism" in the USA. What does he mean by that?
7. Describe and explain the various elements of the military bureaucratic complex (MBC) in the Soviet Union.
8. According to R. Bahro, what does it take to eliminate the detrimental effect by the CIA and the KGB on the internal progress in the two states?
9. How do the two main theories about the process of armament apply to the MIC in the USA and the MBC in the Soviet Union.



## GENERAL ELECTRICS

### A BUSINESS OF WAR

*Extracts from a pamphlet by [American Friends' Service](#)<sup>22</sup>.*

#### **General Electrics and the Pentagon**

It may be hard to imagine any single organization which is on the order of ten times GE's size by annual budgets and by numbers of employees, but the Pentagon fits this description. As our largest and most important federal agency, the Pentagon is the most dramatic example of 'big government' in action. Big business has not stood idly by while this growth of the military establishment took place. It has benefited from this growth to such an extent that big business and the Pentagon are now inseparable.

The big car companies, telephone companies, appliance companies and oil companies turn out to be the big military companies. Part of the explanation of why these companies have moved into the production of military items that may have little relationship to their original product lines, is that profits on military production are so high. According to one study prepared by the [General Accounting Office](#)<sup>23</sup> for Congress in 1971, the profit made over the investment in the average contract is 56% (before taxes).

If we examine the background of men who occupy the top positions in the government side of the military establishment, we find that most of them are former businessmen. One study, focusing on the period 1940-1967, shows that eight out of ten Secretaries of Defence, seven out of eight Secretaries of the Air Force, eight out of nine Secretaries of the Army, every Secretary of the Navy, every Deputy Secretary of Defence, and three out of five directors of the CIA were executives recruited from banking and industrial corporations. These men are appointed, not elected, so they don't have to please the public by their actions. Their real 'constituency' is the business world - the world most of them

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22 American Friends' Society: The official name of the Quaker's' society is "[The Friends](#)".

23 Now: The US Government Accountability Office.

came from and to which most will return after completing government 'service'.

Farther down in the ranks of the military establishment are generals, admirals, and other officers who, it is true, have spent their lives in the military rather than in corporations. But many of them are also linked to the corporate contractors by the hope or promise of a new job after they retire from the armed forces. A 1969 Congressional study found that over 2000 retired, high-ranking officers were then employed by the top 100 contractors. Many of them are sent to see their old friends at the Pentagon on behalf of their new employers. Congressional Quarterly Service reports that despite a 1966 Executive Order prohibiting a retired officer from 'selling' or negotiating contracts with his former service, one industry source told [Congressional Quarterly](#) that 'at least 90% of the retired officers hired for top-level positions by the defence contractors ignore that regulation'.

We are usually led to believe that it is our government which determines our need for, and plans the ever more advanced weapon systems that keep military budgets so high, and that industry's role is simply to carry out the orders given it by government. Insiders know better. "The day is past when military requirements for a major weapons system are set up by the military and passed on to industry to build the hardware. Today it is more likely that the military requirement is a result of joint participation of industrial and military personnel, and it is not unusual for industry's contribution to be a key factor. Indeed there are highly placed military men who sincerely feel that industry is currently setting the pace in the research and development of new weapons systems." - So said Peter J. Schenck, former president of the [Air Force Association](#) and executive of [Raytheon](#), a defence contractor. His point is illustrated by the story of TEMPO.

## **TEMPO**

Already in 1956 GE established its own 'think tank' called TEMPO. The word is an abbreviation for TEchnical Military Planning Operation. Within a few years its staff grew to include about 100 doctors of philosophy in the natural and social sciences, and about 100



other professional researchers as well. In return for several millions of dollars each year in contracts from the Department of Defence and other government agencies these TEMPO experts study and propose solutions to military problems. Two quotes from current TEMPO publications convey the flavour of its operations.

Tactical weapons systems analysis of current and future weapons are an important segment of TEMPO'S national security studies. These studies combine the realism of war gaming exercises by senior military strategists with the operations research and computer techniques of the systems analysts. Tactical weapons systems such as air defence systems, missiles, aircraft and vehicle armaments systems are analyzed in their actual operating environments.'

There is also a second, deeper reason why TEMPO'S studies are no longer limited to weapons research. The American experience in Indo-China gradually taught military planners that US power abroad could not be maintained with bombs and guns alone - however advanced in design these weapons might become. And so the science of military intervention moved beyond the engineering laboratories, and further it spread across the campus, so to speak, into the social science departments and the humanities. It began to encompass political science, sociological studies of groups (such as foreign elites, police forces and rebel forces), area studies of regions of underdevelopment - their geography, climate, culture, and economy, and psychological techniques, such as mass communication and human motivation.

The meaning of this trend is not that the military establishment has suddenly donned academic robes in order to observe the world detachedly from an ivory tower. Instead the academics have been hired by the military to don khaki.

The military now realizes that for American military and political intervention into less developed countries to be effective, it must be total in character. Every technique of manipulation must now be examined for possible application - from 'social engineering' to the creation of artificial storms for military purposes.

## SECOND THOUGHTS ABOUT GE'S BEST INTERESTS

The policy of militarism as a response to Communism has served GE's interests well, and there is no evidence that top GE officials want any change in this policy. However, GE leaders must have had second thoughts about whether other aspects of its strong anti-Communist line were serving GE's best interests. Now, as we mentioned earlier, GE's weaponry was prominent in the American crusade against Indochinese Communism. It is interesting that at the very moment this crusade was reaching its bloodiest heights in December 1972, GE was also occupied in another Communist country, in another kind of crusade. For on January 15th 1973, The Wall Street Journal announced that GE had concluded a broadly based agreement with the Soviet Union, for the exchange of technology and for possible Soviet manufacture of GE products. The agreement 'could be worth tens and hundreds of millions of dollars' to GE in the years ahead, explained GE Vice President [Thomas O. Paine](#). (From The Muckrakers vs. The Merchants of Death. American Friends' Service)

### Comprehension:

1. Look at the first three paragraphs of this text and try to find if the authors (members of AFS) are for or against the fact that "big business and the Pentagon are now inseparable." (Include the title in your considerations)
2. How can a car company turn out to be a military company?  
Does the text explain why it is so?
3. According to the authors there is a widespread misconception as to who determines the need for advanced weapons systems. Identify the misconception.
4. Summarize the 'story' of TEMPO:
  - a. Origin (Why was TEMPO created?)
  - b. Development
  - c. Present situation

5. Why is the story of TEMPO included in this text?
6. Who, in your opinion, is this text intended for? (politicians, businessmen, general public, US citizens, American Friends ?). What is the purpose of the text? (information, propaganda, persuasion, entertainment ?)

Suggestion for further individual/group/class work:

Compare this text and E. Bauer:  
Irresistible, Irrational, Indomitable Military Technology.

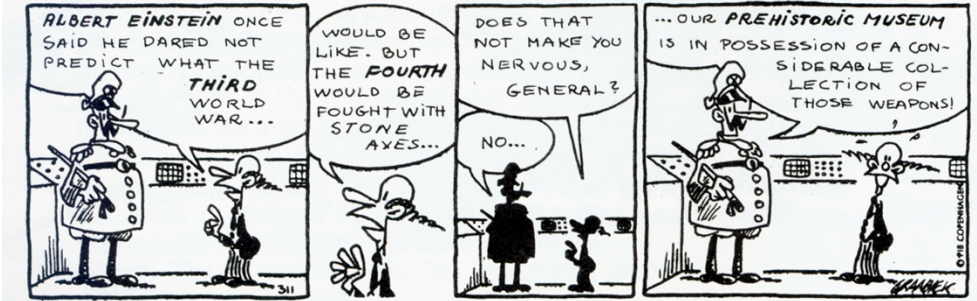
## **IRRESISTIBLE, IRRATIONAL, INDOMITABLE MILITARY TECHNOLOGY**

From *Bulletin of the Atomic Scientists, May 1984*

Military technology is 'wicked' mainly because it goes its own way - in laboratories and industries that are not known, very often not even by the governments involved. Those who work there are people of good will who do what they can in the very general mission that is given them - to use technology for their country's safety. But they do not work at the same pace as governments. Their projects take from 10 to 20 years to be implemented, while most governments last for one year, two years or five years at most. And the technologists who move more slowly are the bosses.

Military technology is irresistible. When a device is invented, who would be strong enough or feel safe enough to say: We will not produce this device? It is asking too much. This of course could apply to either side, and the example of the SS-20 is not an accusation. Soviet scientists probably began to think about the SS-20 some 10 or 15 years ago. They knew that a modern technology was available and thought, probably rightly, that the Americans had the same technology and were beginning to develop it. Thus in Soviet military laboratories the new weapon began to take shape. Then came various prototypes and finally industrial production.

## ALL IS WELL WITH THE WORLD



But the SS20 came into a world situation that was unforeseeable at the time when the project began, profoundly shaking the United States and Europe. The Soviet missile became a major incentive to the Pershing and cruise missile projects. On the other hand, the United States and the United Kingdom or France almost certainly have in their technical establishments, weapons projects that will come out in 10 - 15 years and be completely destabilizing. Politicians have no power to stop a project that has cost so many years, so much money and so much work. When it is ready it comes out - and the world is shaken, each side accuses the other of imperialism, bad intentions and so on.

It appears that technology goes entirely its own way, even in the most planned economies. When something can be done, it is impossible to resist trying it. And when it has been tried, it is impossible not to implement it. It all ends with a race between technologists, and not between governments. It is natural, automatic - and extremely dangerous. How can governments be freed of the tyranny of a phenomenon able to see only its own aim, thus making the world still more dangerous - and all with a clear conscience?

Etienne Bauer Chairman of the International Centre for Teaching Energy Policy, Paris.

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## Comprehension:

1. Why according to the text, is military technology "wicked"?
2. "And the technologists who move more slowly are the bosses", (lines 8'f) A rather cryptic remark, or is it?
3. How does the author argue the three allegations about military technology contained in the title?
4. What is the purpose of including the history of the SS-20 ?
5. "Technology goes its own way even in the most planned economies".
  - a. What is planned economy ?
  - b. Where is it to be found ? (geographically)
  - c. What is the opposite of planned economy ?  
(cf J. Oberg: [The Dynamics of the Arms Race](#), espec. the MBC)
6. Is Bauer hinting any solutions to the problem: How can "governments be freed of the tyranny" of military technology?

## WHAT'S SO WRONG WITH "THE MILITARY-INDUSTRIAL COMPLEX"?

*Extracts from a speech delivered to the National Security Industrial Association, Los Angeles, California, November 10, 1983, by General [James P. Mullins](#).*

I don't know if you've ever noticed it or not, but we in American society are great ones for casting blame when things go wrong - even when things aren't all that wrong, and even when the blame is substantially unjustified.(...)

There are certain foundations on which American society is built - and from which it gains great sustenance. Yet there are those in this country who frequently attack these foundations, undermining that which helps to secure the blessings of liberty. In fact, this is even true for the two most essential parts of American democracy - the military, and the free enterprise system. And this is especially true when these two are combined into what is often disparagingly called the "military-industrial complex."(...)



*"That was very naughty, Sir Pincus.  
You're not supposed to use gunpowder—it's only a deterrent"*

Frankly, I believe the military-defense industry complex needs more support and less criticism - especially considering that it has kept us free over 200 years - and has protected and defended much of the free world from those dark forces which have always threatened it. That's why I think it's both appropriate and useful for me to summarize my view of the defense industry issue - and look at some specifics I believe all of us need to address. (...)

In 1939, when the great threat of the axis tyranny grew relentlessly around us, Franklin D. Roosevelt recognized the tremendous advantage this nation had in its free enterprise system - he knew what could be achieved if only private industry were properly incentivized. (...)

In fact, it was the millions of weapons and spare parts we produced during a 44 month period which allowed us to win that great conflict, and which prevented the enslavement of the free world. Indeed, without our defense industry, we would have lost World War II. But perhaps we owe an even greater debt to our free enterprise system for its achievements during the post-war period - because that's when we in this country faced an even greater menace - one which, unlike that of World War II, could threaten the towns and cities in America's heartland - towns and cities which, until then, had been invulnerable.

As modern military technology evolved, and the Soviets developed the strategic systems against which there was no defense - we were faced with building a strong and unquestioned deterrent - one which could prevent an attack against our country, and ensure the survival of democracy. But considering the speed at which technology was evolving, and the continuing pressure of an ever-growing threat from the Soviet Union, that was truly an undertaking of immense proportions (...).

Clearly, many Americans do not view big business as a positive influence in their society. But that's often because they've been taken in by the fictional villainy of, say a "J.R. Ewing" on TV's "Dallas," - frequently not recognizing it for the melodramatic mythology it really is. The fact of the matter is that, one way or another, business pays the salaries most Americans live on - business supplies the fuel which our government runs on - and business provides the essential goods and services that all of us depend on. Indeed, as American business goes, so goes the United States - and frankly, so goes the entire free world. I believe the defense industry has suffered from the same un-deserved image that American business in general has - only perhaps even worse. For the substantial size of our defense industry, and the large numbers of dollars involved, attract a great deal of attention. There's certainly no doubt in anyone's mind these days that defense is big business in this country. But that doesn't mean defense spending is the wasteful and unproductive drain on our economy which many believe it to be. Most importantly, of course, Americans have received the greatest benefit of all from the investment in defense they've made - after all, we haven't been attacked, and we're still a free and democratic society. But a strong American defense also lends a great deal of credibility to our country and the free world. It creates a stable environment - one in which more business investment may occur. It's also important to understand that defense represents only 17 percent of our total public spending, which is down from a post war high of 36 percent in 1955. In fact, today it represents only about 6 percent of our Gross National Product - less than half of what the Soviets now spend. (...) Americans also need to be aware that defense dollars are not just investments in defense. Money in the military budget is not poured into some dark abyss, never to be seen again. In fact, 41 percent of the '83 defense budget goes directly to paying salaries - to putting money

into the pockets of over 5 million employees in our nation's defense program. And what they do with it, of course, is spend it in stores, and save it in banks, credit unions, or savings and loans. They use it to buy cars and homes, they use it to send their kids to school, they use it to pay their taxes, and they give it to charity. Indeed, a large part of every defense dollar directly supports hundreds of local communities - many in economically-austere environments which otherwise would have limited sources of reliable financial support.

A large portion of defense spending also goes directly into the taxpayer's pocket by creating other jobs, and paying other salaries in the private sector. A government defense contract does not just represent money allocated to hardware - it represents good, productive employment for hundreds of thousands of Americans - employment that otherwise would not exist.

Military spending also provides this nation with another major benefit - and that's to encourage technical innovation and stimulate scientific discovery. Military applications do require a great deal of advanced research and development in fields ranging from aerodynamics to human factors. And because they serve to push the state-of-the-art across the board, they do generate many spin-off technologies - from high speed microprocessors, to satellite-based communication systems - all of which, in one way or another, benefit the American public. And how about education? What role has the military and industry partnership played in educating Americans? How many colleges and universities underwrite their rising costs with defense contracts, industry grants, or ROTC programs - and how many bright students owe their educational opportunities to the defense dollars we've spent? And think about the skills base which our modern military provides American society. Virtually everyone entering the armed forces receives some type of specialty training - from truck or aircraft mechanics, to computer programmers, to medical technicians. Just how much does their training contribute, over the years, to the well-being of this country? (...)

I believe it is our job, as members of the military and the defense industry, to tell it like it is - in many cases, to come out of the shadows and put the facts on the table where they can be legitimately and objectively evaluated. For timidity in this regard has served, and will continue to serve, no cause but the wrong cause. (...)



In conclusion, let me just say that there's no reason Americans should not be proud of their military-industrial complex - because it has worked well in the past, and it can continue to work well in the future. But we must press hard for an open, competitive environment - we must improve the way we do business - and we must take better advantage of the inherent strengths of the free enterprise system.

*James P. Mullins, General United States Air Force (Quoted from Vital Speeches of the Day, Dec. 15 1983.)*

### **Comprehension:**

1. How is the general's audience likely to react to his speech?
2. What are, according to the general, the foundations on which American society is built?
3. What is the desired effect of the various historical references?
4. Why were the Americans faced with a need to build up "a strong and unquestioned deterrent, to ensure the survival of democracy"? What is the deterrent in actual fact ?
5. Why, according to the general, has the MIC such a poor image?
6. List the general's arguments in defence of the MIC.
7. Discuss the advantages - and the dangers - presented by the fact that the thriving of colleges and universities depend on incomes derived from the MIC. ~
8. Look at the conclusion of the speech. In the general's opinion, what is wrong at the present moment? Does he suggest any remedies - any solutions - to the problems he sees?

Suggestions for further individual/group/class work:

Compare this text and J. Oberg: [The Dynamics of the Arms Race](#).

Useful starting points:

Mullins: "Free enterprise system"

Oberg: "State capitalism"

Examine the text to exemplify the general's use of 'euphemisms' and similar stylistic devices presented in the section [Newspeak / Nukespeak](#).

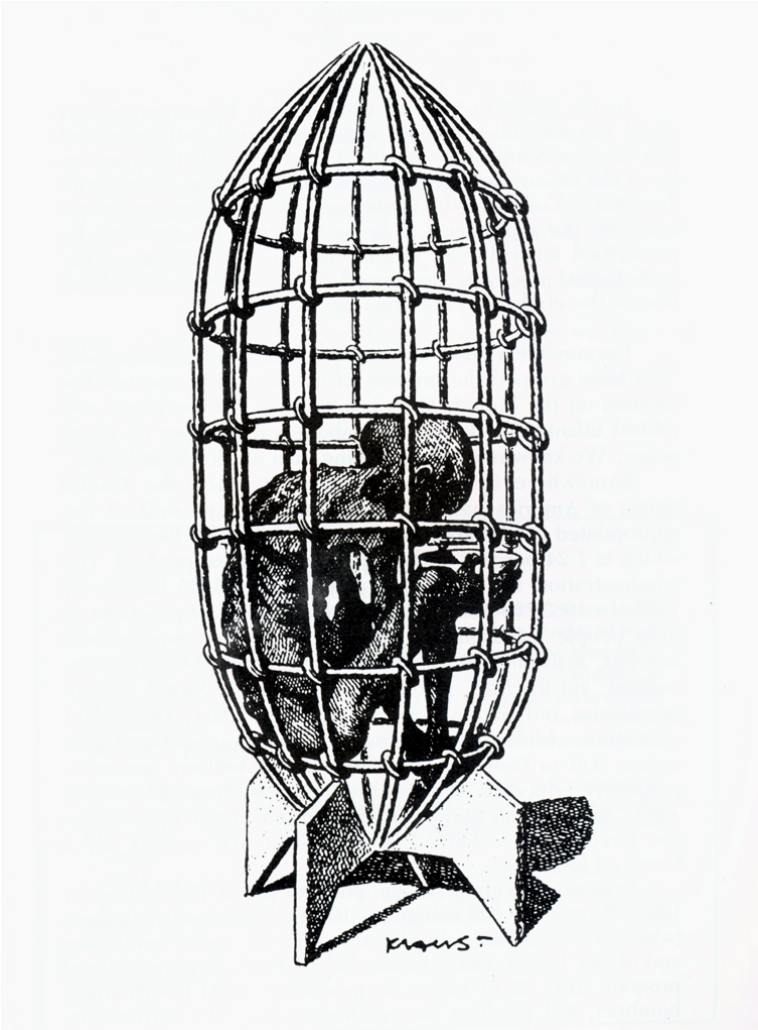
*"Every gun that is made, every warship launched, every rocket fired signifies in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed. "*  
— Dwight D. Eisenhower

## **GUNS OR BUTTER?**

Since the thirties when the slogan "[guns or butter](#)" was coined<sup>24</sup>, nations have been faced in various degrees with this problem of priorities: more sophisticated arms or better living conditions for the people. Today, on a world scale, it has been proved beyond question that one cannot have [armament](#) and development at the same time. Apart from the inherent dangers of the arms race itself, the fatal consequences of the perverted priorities have become ever more apparent, as will appear from the first text. Even in the USA the budget cuts in the social sectors provide a sad proof. Still, the perception of this relationship is very slow in making itself felt with leading politicians and businessmen, where the lure of power and profits seems to override (as always?) moral obligations or even considerations about their own future, not to mention that of mankind, as the following texts will illustrate.

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24 In a speech on January 17, 1936, Minister of Propaganda Joseph Goebbels stated: "We can do without butter, but, despite all our love of peace, not without arms. One cannot shoot with butter, but with guns."



## THE IRON TRIANGLE

In my quest to prevent nuclear war, I became curious about the societal processes which sustained and motivated this enormous industry of death. I discovered that the answer lay at the feet of the scientists and the three arms of the "Iron Triangle"—Congress, the Pentagon, and the military-industrial complex. As a physician, I know that no cure can ever be prescribed for a disease unless the cause or etiology of the pathological process is ascertained. What follows is an explanation of the etiology of the arms race disease.

Former General of the Army [Omar Bradley](#) once said, "We have grasped the mystery of the atom and rejected the Sermon on the Mount. Ours is a world of nuclear giants and ethical infants. We know more about war than we do about peace. We know more about killing than we do about living."<sup>25</sup>

Somewhere in the last thirty-eight years, the United States of America has lost its direction and its soul. It has appropriated in 1984 approximately \$264 billion for the military, which is 7.24 percent of the total gross national product. The administration has requested authority for \$305 billion for 1985. In 1983, \$30 billion had been taken out of programs to help people: Medicare, legal services, food stamps, school lunches, assistance to low-income families for heating costs, welfare, aid to cities, student loans, Social Security, job opportunities and training, elementary, secondary, and higher education, child-nutrition programs, housing-assistance programs, Aid to Families with Dependent Children, and compensatory education for disadvantaged children. By August 1983, 34.4 million people in the United States were below the poverty line—defined as \$9,900 annual income for a family of four.

Instead, President Reagan plans to spend \$1.9 billion for 100 MX missiles, \$40 billion for 100 B-1 long-range bombers (which will be obsolete by the time they are ready toward the end of the 1980s), \$82.7 billion for Trident submarines (total program cost), \$2.27 billion for production of 84 FA-18 attack bombers, \$11.1 billion for procurement of 525 Patriot missiles (the cost of these weapons for one year), \$500

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25 Armistice Day 1948 [Address](#): General Omar N. Bradley: November 10, 1948.

million for 91 Pershing II missiles, and \$54 million for nerve gas.

I come from a country, Australia, where our tax dollars are used for the benefit and not the death of society. We have nationalized medicine, where medical insurance is either national or private, according to the patient's preference, and all medical care is subsidized. Tertiary or university education is free; all people are given an adequate old-age pension, so they can maintain their dignity, and poor people are cared for. Australia is a capitalist society, but we care for our people. What has happened to the great United States of America?

*(From Helen Caldicott: Missile Envy)*

*Helen Caldicott, Australian doctor, author of several books on nuclear war. Central figure in the Canadian Film Board prize-winning film: ["If You Love This Planet"](#).*

## ILLITERACY

### A Matter of Priorities.

"Here is another social problem you probably didn't know Americans have. According to Jonathan Kozol's calculations, at least one-third of all adults now living in America are either illiterate or nearly so - they cannot function completely in our society. In broad terms that means that 60 million American adults are 'substantially excluded from the democratic process'. More concretely, these people can't look up a telephone number or read the warning on a can of paint.

The figures Kozol offers from official sources are staggering. 40% of adults are illiterate; among black adults nationwide, the rate is 44%. The US ranks 49th in literacy levels among 158 U.N. Countries. What's more, Kozol says the problem is getting worse. (...)

One reason Kozol offers for attacking the problem is economic. By juggling his figures he suggests that illiteracy costs us \$20 billion a year."

Newsweek March 25 1985

[Kozol, Jonathon. Illiterate America. Garden City: Doubleday & Co. Inc., 1985.]

# THE COST OF THE ARMS RACE

*Extract from U.N. pamphlet, 1981*

Vast resources - financial, material, technological and human, in bodies and brains - are being wasted on purposes of destruction when they could be used to bring progress for the benefit of people all over the world.

The resources now being squandered on arms could break the grip of poverty, hunger, ignorance and disease that enfeebles countless millions of people in the poorer countries. Each year military activities absorb a volume of resources equal to about two thirds of the aggregate gross national product of the countries comprising the poorest half of the world's population.

The world's perverted priorities can be seen from the following examples:

- Public health expenditures (not including privately financed medical care) only amount to about 60 percent of military expenditure.
- Resources devoted to medical research are only one fifth of those that go to military research and development.
- The World Health Organization (WHO) spent \$83 million over 10 years to wipe out smallpox in the world - an amount that would not buy even one modern strategic bomber.
- WHO's plan to eradicate malaria - a major killer in the world - has been slowed down by lack of funds. The cost involved - \$450 million - is less than half of what the world spends daily for military purposes.
- Of the world's total spending on research and development since 1945, an estimated 40 per cent has been directed to military-related objectives.

Military-related activities around the world continue to occupy approximately 60 million people. Some 25 per cent of the world's scientific manpower is engaged in military-related pursuits. These scientists could be doing research on pressing environmental and

energy problems in the industrialized world, developing methods to obtain food and minerals from the ocean, monitoring environmental health hazards or undertaking meteorological research and forecasting. They might also develop methods to purify water, raise agricultural output, expand transportation and communication systems, provide health care and hygiene, and increase energy supply in the Third World. These are a few of the pressing problems on the world agenda today. Left unsolved, they could lead to conflicts.

The military consumes huge amounts of non-renewable materials such as copper, zinc, uranium and liquid hydrocarbons, which could otherwise be used for necessary industrial and economic development. That is approximately 3.5 per cent of total world consumption and does not include petroleum products used to produce weapons and equipment. The burden on developing countries caught up in the arms race is enormous. Their budgets, small by comparison with those of industrialized countries, absorb an increasingly large proportion of the limited resources available. Some spend, on average, the same for military activities as they invest in agricultural production - while half a billion people are severely malnourished, millions live on subsistence diets, food production is declining, and famine strikes vast areas of the developing world.

The arms race has other, less obvious costs. It creates international tension and suspicion; inhibits the free flow of international trade; blocks free access to credit markets and to raw materials needed for development; slows the spread of new civilian technologies to developing countries when these have a possible military use; and creates alliances and spheres of political influence which prevent development aid from reaching countries which desperately need it. Such assistance, when it is available, is given to strategically important countries by military powers wanting to secure regional influence or military advantage. This aid is not received by the poorest countries since they rarely have the requisite political-strategic significance.



## THE ARMS TRADE AND THE THIRD WORLD<sup>26</sup>

Of the \$650,000 million spent each year by the world's military, roughly \$160,000 million goes to buying weapons. This makes the weapons industry the world's second biggest industry, after oil. About \$40,000 million worth of these weapons are traded in the international arms markets. Almost all of the 150 or so [wars since World War II](#)<sup>27</sup> have been fought with weapons imported from the advanced countries. Can the arms exporters escape some responsibility for the tens of millions of [deaths](#) and serious injuries caused in these wars?

### **What countries trade in arms?**

The USA and the USSR are the biggest arms traders - together they have supplied some 70% of the weapons exported to the [Third World](#). France comes next, accounting for 12%, then Italy, 5% and the UK, 4%. Most weapons sold abroad go to the Third World. According to figures published by the Stockholm International Peace Research Institute, SIPRI, nearly 65% of the major weapons: armoured vehicles, aircraft, warships and missiles, sold abroad go to Third World countries. Within the Third World the Middle East is by far the biggest importing region. Between 1979 and 1982 for example, about 45% of the major weapons transferred or sold to the Third World went to the Middle East. The top ten Third World major weapon-importing countries were in rank order: Libya, Saudi Arabia, Iraq, Syria, Israel, India, South Yemen, Egypt, Vietnam, and Morocco.

### **Motives for selling and buying**

The motives for selling arms vary.

The super powers do so to gain political or economic influence in Third

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26 The Arms Trade with the Third World, SIPRI, Stockholm International Peace Research Institute (Uppsala: Almqvist and Wiksell, 1971); and Arms Trade Registers: The Arms Trade with the Third World, SIPRI, Stockholm International Peace Research Institute (Cambridge: MIT Press, 1975).

27 See also: [Britain's Small Wars](#). [List of ongoing political conflicts](#). [List of civil wars](#).

World regions or to acquire military bases abroad. The smaller suppliers believe that selling weapons helps their economies, particularly in times of recession. And then there are the economies of scale to be had from long production runs. By selling arms abroad countries reduce the cost of the arms for their own forces. Some countries want to recover the enormous research and development costs involved in modern weapons design and construction. And of course, commercial firms apply considerable political pressure on governments to persuade them to grant export licences for this lucrative trade. Countries buy arms also for a variety of motives. Some do so because they have real or perceived security needs. Arms are seen to be needed for internal and external conflicts in which force may be used. A vicious circle may then be established. When one country acquires modern weapons, a neighbour may feel provoked to do the same, and an arms race begins.

In some Third World countries the political leaders are military men who want the most sophisticated weapons because they are the most glamorous. Other governments need the political support of senior military officers, and believe that they can get this support by satisfying military demands for the most modern weapons. Some Third World countries have much faith in the superiority of technology, particularly military technology, and feel most secure when their arsenals contain the most sophisticated weapons.

There is little doubt that large arms deals have had little to do with security or any other military matter. Very expensive weapons are for example bought by Saudi Arabia purely, many suspect, as a way of recycling petro-dollars. Other Third World countries buy large quantities of arms abroad in the belief that, in some way, high military spending assists civilian development. For this reason, some have developed significant weapon-producing industries.

It costs so much less to invest in people and in life, than in weapons and in death. Even a small reduction in military spending would go a long way towards solving the problems of living.

On the average it costs about the same:



## The boomerang effect

The eminent American economist [Ruth Sivard](#) in her *World Military and Social Expenditure*, 1980, gives many examples of how the large military investments made by the great powers in Third World countries have boomeranged. Egypt received \$4000 million in Soviet military aid before switching to the USA as its main arms supplier. Some of the Soviet arms supplied to Egypt were used against the Soviets in Afghanistan by the rebels. Nicaragua depended for years on US military aid before the rebellion which ousted Somoza 1979; it now receives arms originating from the Soviet bloc. Mozambique received communist arms aid after 1975, but in 1980 started turning to the West for military assistance. The Shah of Iran was America's best

arms customer; he was toppled from power in a revolution which used 300.000 weapons taken from the Shah's arsenals. The USA is now using the Berbera military base in Somalia, constructed by the USSR before Somalia-Soviet relations soured in 1977. The Soviets are now using the naval facilities at Cam Rahn Bay and Danang in Vietnam, built by the Americans. Even so we must expect the superpowers to continue to use the arms trade to exert influence in Third World countries, and to have military bases abroad, sail their navies into all the oceans, station troops in other countries and make use of any proxy forces. It has all become part of superpower behaviour.

Frank Barnaby, the author was until 1983 director of SIPRI; key figure in TV-series on Nuclear winter,, nuclear physicist;.

### **Comprehension:**

1. In the first paragraph the author asks one vital question. Find it.
2. Make a Top 5 list of arms trading countries (export).
3. Explain what is meant by the "Boomerang effect"? Make a list of various motives for:
  - a. the selling of arms
  - b. the buying of arms
4. What are the author's comments on these motives? Try to add your own comments.

Suggestions for further individual/group/class work:

1. Subject for discussions: Arms export and responsibility. Consider the following questions:
  - a. Imagine you are an arms manufacturer.
  - b. Imagine you are a politician (right wing, left wing, moderate, it's your choice)
  - c. Imagine you are Gerry Whipple from United Auto workers,
2. What would be your answer to the "vital question" ?



## ARMS SALESMANSHIP IN THE THIRD WORLD

*Extract from Anthony Sampson: The Arms Bazaar*

### "Just between you and me"

The arms companies were constantly trying to find new markets by lobbying the armies or air forces, and the Lockheed and Northrop papers provide recurring evidence of how they could thus affect national priorities. Lockheed's most profitable export during the sixties was the [Hercules](#) military transport, which had become an important part of the economy of Georgia. The giant Hercules had no real competitor: the Russian [AN-12](#) and the Franco-German [Transall](#) transports were much less effective in moving troops quickly and efficiently. The army and air force officers loved this spectacular plane, but it was often very doubtful (as in Italy) whether it was really necessary for national defence; and in this situation Lockheed were sometimes in alliance with the military against civilian spending. Later I asked a Lockheed executive from Georgia why the company had to sell the plane so relentlessly, when it had a virtual monopoly; he replied, 'We're always competing with other government projects.' And

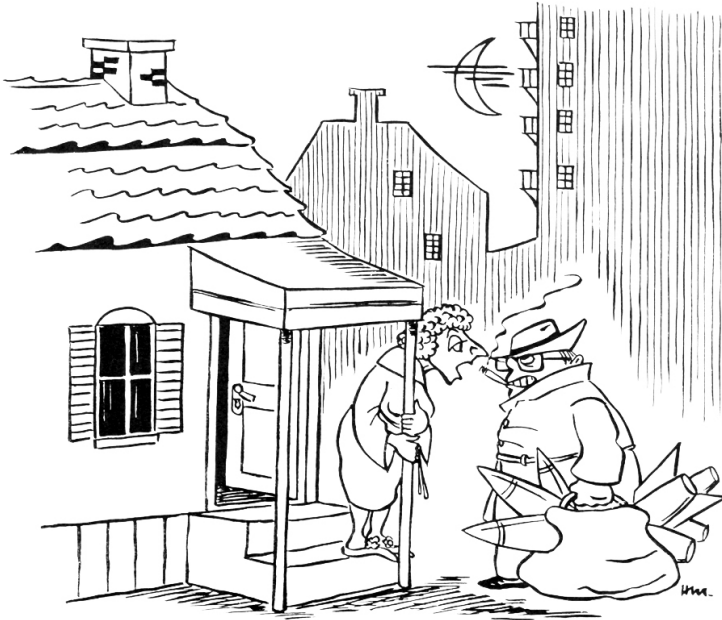
the selling of the Hercules abroad was of special interest to the Pentagon who (as they admitted) wished to keep open the production line in Georgia, in case they should wish to order more Hercules for themselves.

A vivid example of the effects of this salesmanship emerged in Columbia in 1972, when Lockheed were promoting their Hercules at a time when the President had requested a reduction in the military budget. Lockheed's representative in Bogota, Edwin Swartz, advised Lockheed in Georgia that 'high officers of the air force' would make a grand effort to arrange the buying of a third Hercules, in return for bribes or 'sugar' amounting to \$100,000. The Bogota agent reported that he had found out that the air force would ignore the reduction in the military budget, 'if they can justify the necessity of more equipment in order to guarantee the national security'. 'Just between you and me,' he added, 'this is not exactly true, as you can imagine, but the important point for us is that they want sugar; and for that they are ready to do almost anything'. The meaning was unambiguous: the point of the bribe was to sell arms where arms were not needed.

The most depressing arms race was between the countries of the Third World who could least afford it, who were buying weapons instead of food or welfare; among the developing countries without oil to sell, orders for American arms had gone up from \$240 million in 1972 to \$2.3 billion in 1976 - a nearly tenfold increase.

Black Africa was also presenting a promising new sales territory. Nigeria, with big oil exports, was becoming an important new buyer, and in East Africa the infection was spreading. Uganda, under the mad dictatorship of [Idi Amin](#), was the protege of [Gaddafi](#) in Libya, and after the Israeli raid on [Entebbe](#) Libya agreed to lend Uganda twenty [Mirage](#) fighters. But Amin could also obtain some supplies from Britain, including special counter insurgency equipment flown out in September 1976 with devices for tracing secret radio transmissions. Kenya in turn was worried by Uganda on one side, and by Russian arms in Somalia on the other, and in June 1976 she turned to America for arms, buying ten Northrop Tigers; meanwhile Zaire and Ethiopia, both impoverished countries, followed the armsbuying spree. American sales to Black Africa - nearly all to Zaire, Kenya and Ethiopia - *went up by eight hundred percent in one year*. It was tragic (commented

Senator [Dick Clark](#)) that while both Kenya and Zaire were desperately short of food, their governments were nevertheless increasingly preoccupied with buying arms. The weapons to the Third World were forging their own kind of colonialism, exploiting the poorer countries without the need of foreign armies or empires. While appearing to fortify sovereignty, they were creating new patterns of dependence: and some new nations were coming to realize it. The foreign minister of Singapore (itself a heavy arms buyer) [Sinathamdy Rajaratnam](#) complained with special animosity: "The massive flow of arms to the Third World confronts it with a new danger. It is, first of all, a drain on their economies; but even more important is the fact that it creates a new form of dependence on the Great Powers."



## DEARTH OF A SALESMAN

*"The Developing Countries Are Slowing Their Rush to Rearm, Spelling Leaner Times for Arms Merchants"*

-Headline in The New York Times

Willy Loman arrived home from his trip around the world and dropped his two large sample cases in the hall.

His wife Linda rushed out to meet him. "How did it go?" she asked him, although she could tell the answer by the look on his face.

"I didn't get a nibble", Willy said. "It used to be I could walk into the capital of any Third World country with a pressed suit and a shine on my shoes and come back with a couple of billion dollars in orders. But now I'm lucky if a minister of defence will even look at my line. I think I've lost my touch".

Linda took his coat. "It isn't your fault, Willy. I heard on the radio this morning the Third World countries can't get the loans to buy arms like they did in the go-go



days of the '70s".

Willy said, "My arches are killing me. I almost closed a deal with King Hussein for 1,600 Stinger anti-aircraft missiles. It would have made the whole trip worthwhile".

Linda asked, "What happened?"

"The king got sore at Reagan, attacked the U.S. and said he'd probably buy the stuff from the Soviets. Hell, 10 years ago he was on his knees begging me for anti-aircraft missiles".

"You gave it your best, Willy".

"My best isn't what it used to be. Damn French are underselling us in Iraq, the British are telling their Commonwealth countries our F16s are kites, and the West Germans are giving all sorts of credits on their Leopard tanks to the South Americans".

"What about Brazil? You always used to be able to sell Brazil tons of guns".

"Brazil's broke. Besides they started their own arms business and now they're exporters".

"You never came back without an order from Argentina", Linda said.

"They got a new government in Argentina.

The military junta that was thrown out stockpiled enough arms for eight Falkland wars. It used to be when I went there everyone in the defence ministry

would say, 'Willy Loman is here'. And I'd walk by all the other arms salesmen right into the commanding general's office with a big smile on my face, and he'd say, 'Get out your order book, Willy. Have I got a shopping list for you!' Now the general's in jail, and this time when I showed up, they all laughed at me. No one pays attention to me any more".

Linda said, "Oh come on, Willy. Everyone likes you. Didn't you tell me the king of Saudi Arabia took you to dinner after you sold him the AWACS?"

"That was two years ago. This time I tried to get in the palace and some third cousin stopped me at the gate and said because of the oil glut, the king wasn't in the market for any stuff anymore. I tried to show him a Northrop F20 in my sample case and he slammed the gate in my face. If I can't make a sale in Saudi Arabia, where can I make a sale?"

"What about India? Indira Gandhi always gave you an order".

"She used to, but now she's buying from the Russians. I don't know, maybe I should buy a new suit. I just don't seem to have it any more. There was a time when I could sell a squadron of Torpedo boats to the Filipinos, and they didn't even ask about the price. Now to make a sale they want a

10 percent kickback for their orphans foundation, 10 percent for their brother-in-law's church mission in Luzon and 30 percent deposited to some damn numbered soup kitchen in Switzerland. I can't go back to the home office with an order 'like' that".

"Willy, you're tired. Tomorrow, I know you'll get something.

I hear the war is heating up in El Salvador. And Libya could invade the Sudan, and they're always going to need arms in Lebanon. And don't forget Taiwan and

China, Willy. The Third World is always going to need arms salesmen, and you're still the best in the business".

Biff, Willy's son came in. "How did you do, Dad?"

"Great. I did just great. The king of Morocco told me last night, 'Willy, if I ever get a loan from the World Bank again, I'm going to buy every cruise missile in your sample case'".

Art Buchwald

1984, *Los Angeles Times Syndicate*.

## PRIDE AND PREJUDICE

### Views of a Trade Union Boss

Anthony Sampson reports from California: I talked to the regional director of the [United Auto Workers](#), Gerry Whipple<sup>28</sup>, who is in charge of the six western states, with heavy representation in the [aerospace](#) companies. What, I asked, was his attitude to defence spending, and the BI bomber? He let loose an immediate tirade.

"The BI is the best deterrent we have, and it's got a helluva lot of plusses: it provides a very necessary job programme and it stimulates the aerospace industry. Remember, in times of national crisis the aerospace companies are pressed into service with all kinds of nice promises; but when the crisis passes they're thrown on the heap, California has been built on food, defence and oil; you can't expect us to convert into industries for garbage disposal or cheap houses. There are some super-liberal congressmen with their heads in the clouds who dream of building houses instead of

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28 Gerry Whipple, the director of the western regional office of the United Automobile Workers (UAW) from 1970 to 1977.

bombers: but workers can't have pride in making low-cost housing, when the low-income families just use them for putting garbage in the hall. You can't convert workers into leaf-raking jobs, keeping them pushing a broom. The people making the B1 bomber think they're working for the good of the community, and people have pride in it. This used to be the aerospace capital of the world, and now I reckon there's as much as fifty percent unemployment in part of the industry: the Pentagon are squeezing every dollar, and the companies are moving to Texas or Georgia. If the B1 bomber is not consummated there'll be real problems with employment and capital investment. As for exporting arms, if we didn't do it, someone else would: and without arms those countries would be totally defenceless."



### Comprehension:

1. Make a list of Whipple's arguments for the production of the B1 bomber. Examine and discuss each argument. Compare: [Perfectionists and Professors](#).
2. What are 'some super-liberal congressmen' dreaming about (according to Whipple)? Why can't these dreams

- come true? (In G. Whipple's opinion) What do YOU think ?
3. Why do you think "[Pride and Prejudice](#)" was chosen as a title?

Suggestions for further individual/group/class work:

1. Job Creation, a discussion:

You may include: Mullins: [What's so wrong with the MIC?](#)

Why, then, is Defence such a poor provider of jobs? p. 98

2. Quotation from this text:
3. "As for exporting arms, if we didn't do it, someone else would." (See the discussion suggested in the text: [The Arms Trade and The Third World](#))



## ARMS TO SOUTH AFRICA

*Extract from The Observer, April 29th 1984.*

*Special report by Peter Durisch. Research by Jorgen Pedersen and Sten Baadsgaard of Danish Television.*

It is dawn on a clear morning in the Bosphorus. A Turkish patrol boat lies in wait for ships that may be smuggling arms bound for Turkish terrorists. Through binoculars the Turkish military crew see the Danish coaster, Sarah Poulsen, three miles away, steaming towards the Black Sea. There is something odd about the ship's movements - it is the third time it has passed through these waters in the past 17 days. The captain decides to investigate.

The vessel is stopped and boarded. The Danish captain, Kaj Steffen, after requesting the presence on board of the Danish consul in Istanbul, orders three wooden boxes to be brought up on the deck. Watched by the officials, Steffen opens them: they contain land mines and machine-gun ammunition.

The captain explains that the arms are from Bulgaria. They were loaded in the Bulgarian port of Burgas and they are bound, perfectly legally, for Nigeria. He produces his bill of lading which states clearly that the arms are destined for the Nigerian army. The Turks are satisfied, suitable apologies are made, and the ship is allowed to sail on.

### REBEL GROUPS

In maritime terms the search of the Sarah Poulsen on 7 September, 1978, was routine. But it was to have spectacular repercussions. For the Danish consul, suspicious about the lack of Bulgarian stamps on the ship's documentation, sent a report that day to the Ministry of Foreign Affairs in Copenhagen. It was the first clue pointing towards the real nature of the Sarah Poulsen's operations.

Thanks to the determination of two reporters from Danish television, Jorgen Pedersen and Sten Baadsgaard, helped later by The Observer, details of a staggering clandestine arms trade have now been un-

covered. This investigation reveals that the arms on the Sarah Poulsen were bound, not for Nigeria, but for South Africa, a state whose public posture is implacably hostile to the Communist bloc but which, from 1978 to 1980, regularly bought arms from Bulgaria for use by rebel movements in Angola and Mozambique.

Rumours about the trade have been rife in the arms world for years. This is the first time, however, that it has been documented - and the evidence is devastating for the Communist hierarchy in Bulgaria. It shows that the transactions, which are in total conflict with Warsaw Pact policy towards the Apartheid State, have been directed by a senior Communist official in Bulgaria, Ivan Slavkov, who is currently head of the Bulgarian Olympic Committee.

## **VIENNA AND SOFIA**

The story begins, almost inevitably perhaps, in the city that has so often acted as a bridge between East and West, the Austrian capital of Vienna. In the mid-1970s an elderly Austrian businessman, Wilhelm Weiss, established a business there buying meat in Rotterdam and selling it to Eastern Europe.

Weiss's Bulgarian contacts included two women, Maria Kelemer and her beautiful daughter Vera, both born in Bulgaria but now living in Vienna with Austrian nationality. Vera is Slavkov's mistress and as such has unusual access to high level Communist circles in Bulgaria. Slavkov himself is a former head of Bulgarian television and is a handsome playboy figure, whose rise to power is partly due to his marriage to Ludmilla, daughter of President Todor Zhivkov. She was killed in a road accident a few years ago.

For business reasons, the mother served her daughter on a plate to Slavkov and since then Vera and Slavkov have met many times in Vienna and Bratislava. But Weiss also had good contacts in the West. Among them was a Frankfurt businessman, Peter Mulack, a tall, distinguished-looking man, now 63, with a distinctly chequered business career.

Mulack is currently living in well-protected luxury behind the high walls of a multi-million dollar mansion in Miami, Florida. According to a detailed Interpol report, Mulack has been the subject of repeated investigations since 1969.

These include the gun-running episode of 1973 when a ship called the Claudia was intercepted off the Irish coast carrying five tons of arms for the IRA. Mulack had 10 per cent of the company which owned the Claudia. Mulack was just a small arms dealer but he got the chance to sell to the South Africans. 'But he had no contacts in Eastern Europe, said Weiss. I had the contacts with Bulgaria and so he suggested we go into business together. I introduced him to the Kelemers and they introduced him to the Bulgarians and so the deal was arranged. He and I would share the commission -but he didn't keep his side of the bargain.'

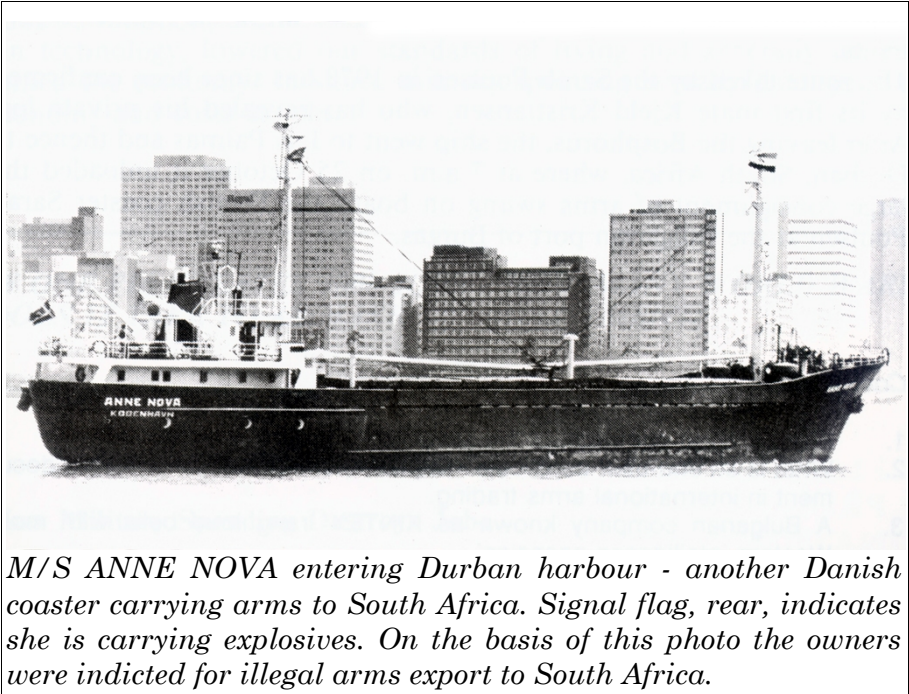
The message that Mulack passed to Weiss was that the South Africans badly needed small arms to supply the rebel movements they were supporting in Angola and Mozambique. The South Africans did not want to supply the rebels with their own NATO-type equipment. They wanted to supply Eastern European weapons such as AK-47 rifles, machine-guns, rocket-launchers, mines and grenades which could only be bought in the Communist bloc.

## **THE CONTRACT**

In April 1978, a secret meeting took place in the South African Embassy in Paris. The contract refers only to goods, worth nearly \$5 million, but it states that Mulack must provide an end-user certificate - the essential document for any international shipment of arms. This crucial document was obtained from the Nigerian High Commission in London. It was signed by Major Okoduma, army attaché at the commission, and was backed by a British Foreign Office guarantee known as an 'apostille' which states that the named signature and official seals are genuine.

The Foreign Office has since confirmed that the 'apostille' was a forgery and FO officials had nothing to do with it.

Last week, the Nigerian High Commission issued a statement to the same effect.



*M/S ANNE NOVA entering Durban harbour - another Danish coaster carrying arms to South Africa. Signal flag, rear, indicates she is carrying explosives. On the basis of this photo the owners were indicted for illegal arms export to South Africa.*

By late April the contract was drawn up. The 'goods' amounted to nearly 100,000 weapons - rocket-launchers, rifles, mines and grenades, all of Russian manufacture. Early in June 1978, Mulack travelled personally to Sofia to arrange the Bulgarian end of the deal. Ostensibly, the contract was with the Bulgarian import-export company INAR at 66 Rue Anton Ivanov, Sofia. Even that name, however, was a cover. The real purchaser was another company at the same address known as Kintex, a name which rings loud bells with most Western intelligence agencies<sup>29</sup>: Kintex has long been known as a cover for the Bulgarian intelligence service, linked with gun-running, drug trafficking and even the attempted assassination of the Pope.

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<sup>29</sup> [Kintex - Key Player in Bulgaria's Secret Transit.](#)  
[On the Trail of Turkey's Terrorist Grey Wolves.](#)



## REVEALING FACTS?

The methods of payment used by the South Africans were suitably devious. On 15 June 1978, the International Bank of Luxembourg sent a telex to the Bulgarische Aussenhandelsbank in Sofia. It read: 'By order of Peter Mulack, representative of Yucca Properties Ltd, we herewith open our irrevocable and transferable documentary credit number 30121 in favour of... Firma INAR ...' It is a damning piece of paper, since not only does it specify the price of almost \$5 million but it actually lists the weapons, which are identical to those on Mulack's contracts.

The route taken by the Sarah Poulsen in 1978 has since been confirmed by its first mate Kjeld Kristiansen, who has revealed his private log. After leaving the Bosphorus, the ship went to Las Palmas and thence to Durban, South Africa, where at 7 a.m. on 25 October it unloaded the large consignment of arms swung on board the Danish coaster Sarah Poulsen at the Bulgarian port of Burgas.

### Comprehension:

1. Make a short summary of the affair.
2. What is an end-user certificate? Explain the importance of such a document in international arms trading.
3. A Bulgarian company known as KINTEX 'rang loud bells with most Western intelligence agencies'.
  - a. What does an intelligence agency do?
  - b. What did these agencies know about KINTEX ?
4. What countries, and what individuals do you find are being discredited by the disclosures of the two Danish journalists?

## **CONVERSION**

Conversion is a question of government policy, but this again is supposed to reflect public opinion - so, in order to create the basic popular support for a new government approach to these problems, the General Transport Workers' Union in 1983 produced a booklet entitled: A Better Future with the aim of informing the general public on matters relating to conversion.

### **A False Choice**

For too long workers in the armament industry have been presented with a false choice. They have been told that spending on weaponry creates jobs and that if the military budget is reduced their jobs will be put at risk. Indeed, the Government has continually stressed the supposed economic benefits of arms spending, especially its apparent capacity to stimulate employment and promote technological change. In fact the opposite is true. There is now substantial evidence that the heavy burden placed on the economy by years of high arms spending has boosted inflation, drained scarce resources, inhibited advances in civilian technology, lowered our standards of living and generally undermined the economy. In short, military spending actually damages the economy and costs us jobs.

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**IF ONE F16 CREATES 1000 JOBS - HOW MANY WORLD WARS DOES IT TAKE TO ABOLISH UNEMPLOYMENT?**

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### **How Military Spending Destroys Jobs**

The tragic fact is that the high level of military spending has not

even saved jobs in the armaments industry. More than 250,000 jobs were lost in the defence industry between 1963 and 1978.

## **SWORDS INTO PLOUGHSHARES**



**THEY SHALL BEAT THEIR SWORDS INTO PLOUGHSHARES  
AND THEIR SPEARS INTO PRUNING HOOKS. NATION SHALL  
NOT LIFT UP SWORD AGAINST NATION. NEITHER SHALL  
THEY LEARN WAR ANY MORE.**

[Isaiah 2, 4](#)

The statue is a gift from the Soviet Union<sup>30</sup> to the United Nations Headquarters in New York.

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<sup>30</sup> in 1959. Made by the artist Evgeniy Vuchetich.

AND THEY SHALL BEAT THEIR POTS  
AND PANS INTO PRINTING PRESSES



AND WEAVE THEIR CLOTH INTO  
PROTEST BANNERS



NATIONS OF WOMEN SHALL LIFT  
UP THEIR VOICES WITH NATIONS  
OF OTHER WOMEN

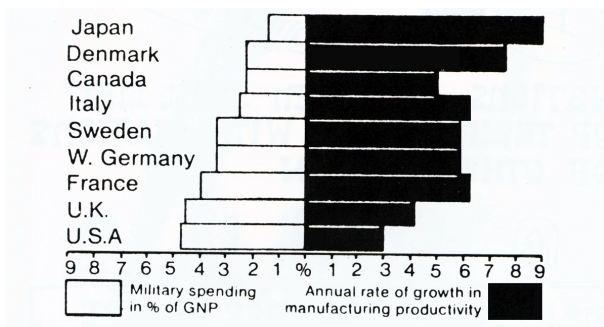


*From the UN Women's Conference, Nairobi 1985*

It is a long-standing misconception that military spending is a good way to create jobs. Of course specific contracts can lead to jobs being either temporarily created or saved in particular locations. In that sense military spending can create jobs. But the essential point to stress is that almost any alternative use of the same money would create more [jobs](#). A considerable amount of research on this subject has been carried out in the United States by Marion Anderson for the IAM and for Senator [Edward Kennedy](#). She has demonstrated that every billion dollars spent in the military sector resulted in a net loss of 9,000 jobs compared with spending the money in the public sector. Overall, Anderson has calculated that more than a million jobs were foregone in the American economy during 1977 and again in 1978 as a result of military spending. To shift spending from defence to other forms of expenditure would therefore create jobs as the following figures derived from U.S. [Bureau of Labor Statistics](#) demonstrate:

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### Military expenditure and productivity



Source: *World Military and Social Expenditures, 1980.*

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### Why then is Defence Such a Poor Provider of [Jobs](#)?

There are several reasons, but undoubtedly one of the most important is the fact that military spending is especially, and

increasingly, highly capital-intensive and technologically advanced. The arms race is not really about numbers, but about technology. A high proportion of military spending goes into advancing technology : electronics, radar and guidance systems and other 'intelligent' machinery - which does not lead to many jobs and which because it is highly sophisticated consumes vast amounts of resources in research and development and has high overheads as a result of breakdowns.

Lastly, many military contracts are on a cost-plus basis - the Government agrees to cover the expenses of the contracting firm plus a fixed level of profit. This encourages vast overspending and price inflation. It is hardly surprising therefore to find that inflation in the cost of military equipment is now running at 6-10% over and above the ordinary rate of inflation. The Harrier aircraft is four times the cost of the Hunter and a new artillery shell is double the price of its predecessor. The result is that equipment is taking an ever increasing share of the defence budget at the expense of spending on personnel.

## **Past Successes**

The task of conversion will not be as difficult as some of its opponents would have us believe. This fact is borne out by experience in this country and abroad, where there are a number of examples of a successful transfer from military to peaceful production.

## **The United Kingdom**

We should not forget the fact that we successfully demobilized millions of service personnel and munition workers at the end of the Second World War. In fact, eight million workers were then redeployed from military production in the space of 18 months. Furthermore, while there has been little subsequent action by the government, there have been numerous initiatives at the

workplace which has provided us with an insight as to what could be achieved by transferring resources to the production of useful goods. Undoubtedly the best-known of these initiatives is the pioneering work undertaken by the [Lucas Aerospace Shop Stewards](#)<sup>31</sup>. At Lucas, [trade unionists](#) came together and produced a detailed alternative [plan](#) of production, identifying a whole range of socially useful products that could be made using mainly existing skills and resources. The alternative products included oceanic, electric machines, transport systems, alternative energy sources and medical equipment such as kidney machines.

## **The United States**

The United States faced very severe problems of economic and industrial readjustment after the Vietnam war. Its military spending was reduced in real terms by 35% between 1968 and 1979, halving the number of jobs in defence industries from 3.2 million to about 1.4 million. It therefore had to confront the question of conversion head-on and has a number of years' experience from which we can usefully draw lessons.

The [Office of Economic Adjustment](#) (OEA) was specifically set up to help communities overcome the consequences of closure of bases, withdrawal of contracts and other local military cutbacks. It achieved considerable success, despite not being given sufficient finance, and accomplished the reduction in defence jobs described above without any serious rise in unemployment figures.

The communities affected by arms cuts have often become better off after the bases have gone. There have, of course, been failures, but overall the record is remarkably good. In particular by diversifying the basis of their prosperity, by attracting several employers to an area where there was previously only one base or installation, many communities have achieved greater stability.

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<sup>31</sup> Read: Lucas Aerospace shop stewards combine committee.

Here are some examples of successful conversion operations:

Benecia, California

Closure of the arsenal and depot at Benecia meant a loss of 2.318 jobs, a staggering blow in a community of only 6.450 persons. Industrial development was initiated reasonably quickly and created 3.000 new jobs in the locality.

Sidney, Nebraska

The closure of the army depot - the largest employer in the region - affected 20% of the families. The site was redeveloped for industry and became a magnet for manufacturing activity. All lost employment was replaced and extra employment was created.

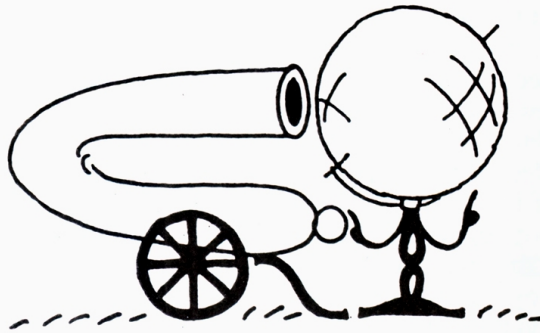
**Comprehension:**

1. Why is the choice between jobs in the armament industry and unemployment a false one?
2. Study the graph on Military Expenditure and Productivity:
  - a: Why, according to this graph, do Japan and Denmark lead the world in "growth in manufacturing productivity"?
  - b: Mention other factors that you imagine might explain that.
3. List the reasons why the defence industry does not provide the number of jobs in proportion to the investments one might expect.
4. The views on conversion set out here by the British Transport Workers Union are not shared by all trade unionists, especially not in the USA; (see e.g. Pride and Prejudice.)

How would you explain the difference in views ?
5. Do you think the problem of conversion needs to be taken up in the public debate around the possibilities of disarmament?



## Deterrence Defence or Pretence

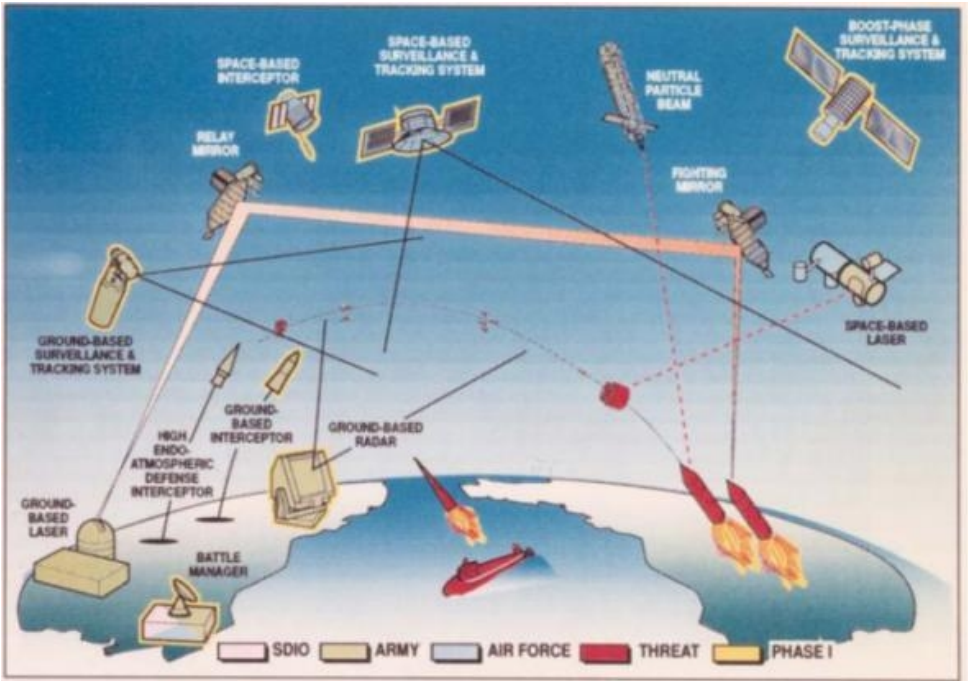


THE TRUE DEFENCE —

The only defence  
that is more than pretence  
is to act  
on the fact  
that there is no defence.

Piet Hein

Copyright © Piet Hein Crooks 1- VII, Borgen 1966-84



Is this how the US [BMD system](#) will work in the year 2000? Essentially, three layers of defence is planned. A missile is detected by an early warning satellite and intercepted during the boost-phase (A). The missiles which escape destruction release their warheads which are detected by an infra-red telescope and intercepted by non-nuclear war heads above the atmosphere (D). Those warheads which escape this interception are detected by ground-based radar and intercepted by conventional nuclear warheads (E), this time within the atmosphere.

## THE STAR WARS PROJECT

### A New American Dream?

*The Strategic Defence Initiative* (SDI) or, as it was immediately named: The Star Wars Project, is to everyone involved, including President Reagan, not much more than an abstraction.

At this point (October 1985) the SDI does not even exist on

paper, there are no 'plans', no 'project' - only a continuous 'brain storming', highly speculative pieces of research at laboratories all over the United States. In an interview given to Newsweek the President tells how he got the idea himself. He offered a vision of a space based shield against strategic ballistic missiles that would make nuclear weapons 'impotent and obsolete': "What if free people could live secure in the knowledge that their security did not rest upon the threat of instant US retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our soil or that of our allies?" That was the vision President Reagan presented to his people.

## THE STAR WARRIORS

*Cuts from Newsweek June 17 1985:*

**A**  
"Privately even scientists involved in SDI research say that the 1983 Reagan speech misled the American public by suggesting that a leak-proof anti-missile umbrella can ever be built... and with tens of thousands of warheads raining down on the United States, even a small leak would lead to destruction of the 'soft targets' - that is human beings. Even if a leak proof defence is impossible, many pro-Star-Wars researchers believe that a modest defence may work - but in that case says [arms control](#) expert [Sidney Drell](#) of Stanford University, that means that Reagan's strategic defence system would remain anchored in a MAD world: The President had a vision that we could get rid of these weapons and scrap deterrence - Defence Department is giving us a program that would enhance deterrence."

**B**  
"The weapon that may someday put an end to nuclear war sits in a vast bunker beneath the Californian desert. With a sound like a thunder-clap, it sends 50-foot-long bolts of high-energy electrons down

a yard-wide tunnel at nearly the speed of light. A Russian ICBM hit with the full force of the focused beam would crumble as if hit by lightning. As things stand now, of course, you'd have to get the ICBM into the tunnel first."

### **C.**

"Here is the greatest technological challenge in the world today, out of which may come the next generation of Nobel prize winners and, in its very immensity, solve that most elusive of scientific quests, the search for lifetime funding."

### **D**

"A weapon still in search of a theory how it should work is not likely to be found much use any time in this century. But as a problem for scientists to work on over the next years, it beats trying to figure out how to make an atom bomb the size of a melon."

### **E**

"Weapons specialists believe their ultimate task is to safeguard human civilization, but they also have an interim goal, which is to put something up there that will drive the Russians crazy. 'The more complex the problem, the better I like it', says Roderick Hyde cheerfully, 'because there's a greater imbalance between our ability to do it and the Soviets'... If it (the problem) cannot be solved directly, the military approach is to turn it into an opportunity to make the Russians sweat."

### **F**

"- To be sure, there is nothing like the feverish greed with which defence contractors lobby for a fighter contract (...)". But scientists can be just as passionate about ideas as lobbyists can be about money. At Livermore, it is often said, there are three levels of classification: secret, top secret, and don't tell Los Alamos. It is that rivalry which has helped keep alive, for example, electron-beam weapons. Many physicists doubt that they will ever turn into a useful space weapon, even apart from the problem that the prototype (as described in A) is several hundred feet long, buried in concrete and hard wired into its own 20-mega-watt electrical station."

## G

"It's very difficult to do non-nuclear defensive weapons' says Pace Van Devender. 'It may be that small nuclear explosives offer such an overwhelming advantage that they will have to be part of the system'. For his part, Teller appears to regard any prejudice against nuclear weapons as sentimental claptrap."

## H

"Whether or not humans play any role at all, the demands on the vast interconnected computer system needed to control a Star War defence, far exceed the capabilities of today's most advanced machines. The computer would require 10 million lines of error-free code', says defence expert

Richard Garvin, a top [IBM](#) scientist. I don't know anyone who knows that this is possible.'... The only way to debug the Star Wars computers would be to test the entire system under actual conditions it would encounter - that is war. Since that is impos-sible, the computers would simply be trusted to function during the [electromagnetic storm of nuclear explosions](#)."

## Subversive Activity?

"(..) In recent months, scores of foreign defence experts and fact-finding delegations have been paraded through research centres and laboratories in the United States where Star Wars projects are already under way. At the same time, Pentagon briefing teams have criss-crossed the continent in a thinly disguised effort to woo European business and scientific support. (...) "The goal is to involve NATO countries' commercial links and bypass the governments", says *Mike Rappolt*, the development director of PA Computers and Telecommunications, a British consulting firm. "*It is to be able to tell governments at the end of the day: 'It doesn't matter what you say. Your companies want to participate.*"



**Comprehension:**

Try to express in your own words what is the idea of the SDI.

- A) What does Professor Drell from Stanford mean, when he says that "Reagan's defence system would remain anchored in a [Mad world](#)"?
- B) Where and how is the weapon that is being developed here supposed to be "working" when - and if - it is completed?

- C) What Nobel Prizes are these scientists likely/not likely to win? What, according to this text, is the problem that this "greatest technological challenge" will solve?
- D) What value might the SDI have - even if it never works?
- E) Who, according to this expert, leads the arms race on technology?
- F) Explain the "three levels of classification" (cp. [The Dynamics of the Arms Race](#))
- G) So far only two nuclear weapons have been used in actual war - What consequences might the ideas of these two leading defence experts have in this connection? Who are the people that according to Teller have "prejudices" against nuclear weapons? Mention some names from the international scene.
- H) Compare the information given here with "[Best False Alarms](#)" and "[Genesis](#)".
- I) Discuss this proposition: "The Star Wars salesmen in Europe are in fact doing subversive work against the democracies their project is supposed to protect".

## TELEX FROM REUTER

The following Reuter telegram was broadcast once on the Danish State Radio newscast, but not mentioned in the TV news - and was only briefly mentioned in a few of the bigger papers.

NNNN  
 EUR425 NYA551  
 180020 :PM-ARMS-SCIENTISTS  
 1,300 SCIENTISTS SAID TO AGREE TO REJECT "STAR  
 WARS" CONTRACTS

WASHINGTON, Oct 17, Reuter - More than half the faculty members of the physics departments at 14 top U.S. universi-

ties have signed a [petition](#)<sup>32</sup> to reject research contracts for the "Star Wars" programme, a petition organizer said today.

Professor John Kogut of the University of Illinois said that in the opening weeks of a national drive for signatures, 1,300 scientists, including 12 Nobel Prize winners, said they would turn down the contracts.

He that at the top 14 physics departments in the country, 54 per cent of the faculty members had signed the petition. "Scientists at leading American physics departments have cast a landslide vote" against the programme, formally known as the Strategic Defence Initiative, Kogut said. "By publically pledging to turn down the largest source of easy money that science has ever seen, during a period when science funding is not lavish, we hope to prevent a major step towards a nuclear catastrophe," he declared.

The aim of the multi-billion-dollar programme is to create a space-based missile defence system to protect the United States and its allies. The project will depend heavily on advanced technology, requiring the help of top U.S. scientists.

The project has become the pivotal issue facing the November 19-20 summit between President Reagan and Soviet leader Mikhail Gorbachev, who has insisted it be halted. Kogut said: "It is a quack cure for nuclear war." REUTER

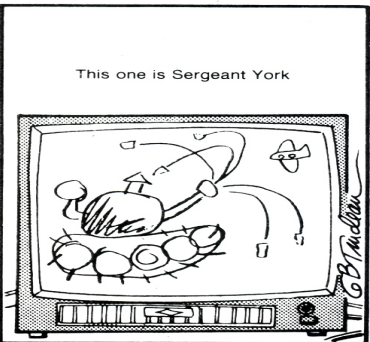
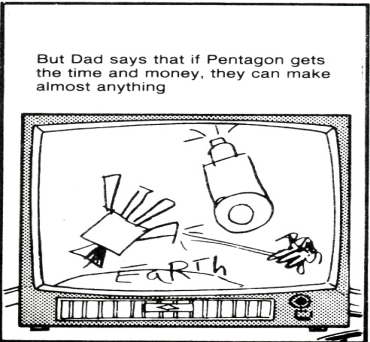
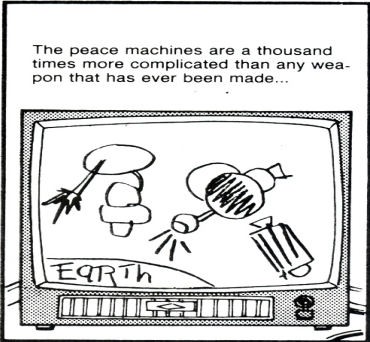
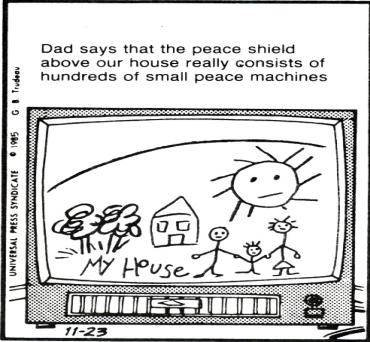
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<sup>32</sup> Read: The national pledge drive against the Strategic Defense Initiative.





*Doonesbury*  
by G.B. Trudeau



*Sergeant York* is the name of an anti-aircraft tank which was taken out of production after having cost 1,8 billion dollars.

## Star Wars and the MAD Stability

In this transcript of the soundtrack from the Granada documentary *The Shape of Wars to Come* (1981) one of the chief American [SALT](#) negotiators, Warnke is interviewed on the strategic effects of a space laser defence system:

*Interviewer.* Why is the balance threatened by the development of defensive space laser systems?

*Warnke.* It is threatened because either side might then feel that its ability to have survival forces that could respond to an attack has been jeopardized.

*Commentator.* Nuclear deterrence is a matter of confidence. It's based on the belief that enough of your missiles will penetrate the enemy's defence to deter him from attacking you.

*Warnke:* Now, that's the situation that's sometimes referred to as mutually assured destruction. Some people say that it ought to be characterized by its acronym, MAD and that it's a theory that the Soviets reject. The thing is, it's not a theory, it's a fact... If we and the Soviet Union engage in a strategic exchange there will be destruction, it will be assured, it will be mutual.

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NB. See [Film List](#) about this - and other films available

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*Our security is the total product of our economic, intellectual, moral, and military strengths - There is no way in which a country can satisfy the craving for absolute security — but it can easily bankrupt itself, morally and economically, in attempting to reach that illusory goal through arms alone.*

— *President Dwight D. Eisenhower*<sup>33</sup>

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<sup>33</sup> Farewell Address, 1961.

## BEST FALSE ALARMS

### **Alice in Wonderland**

On the afternoon of October 5, 1960, a radar installation in Greenland named White Alice<sup>34</sup> picked up a swarm of approaching enemy blips headed for the continental United States. The high-level alert code "Cocoa Color Actual" was put into effect, aircraft were scrambled, missiles were fueled, and, in the word of an officer, "Fingers were definitely placed on buttons." It was only after twenty minutes had passed that it was figured out Alice had been picking up its own signals bouncing off the moon, 250.000 nautical miles away.

### **Well, At Least It Got the Last Two Letters Right**

In 1973 a computer predicted that a Soviet test missile launched somewhere near Iran would hit California. An alert went out to all missile and bomber bases. The Russian missile landed in Siberia.

### **One More Game ?**

An atomic attack signal from a war game was mistakenly fed into computers at the North American Air Defence Command (NORAD) in November 1979. All our ICBMs were placed on alert; launch officers unlocked their safes, obtained their "attack verification codes" and inserted launch keys in their slots. It took six minutes - about the time it would take for one of our new Pershing IIs to incinerate Russia - to get things straightened out.

### **Atomic Radio Shack**

On the morning of June 3, 1980, computers at the Strategic Air Command headquarters in Omaha, Nebraska, indicated a submarine-based nuclear attack in progress. At air bases across the country 116 B-52s were fueled and began taxiing for take off. Even after the mistake was detected, it took twenty minutes for the strategic forces to return to normal. When Assistant Secretary of Defence Gerald P. Dinneen was asked if such an er-ror could cause the Soviets to respond to our alert as a sign we were preparing an attack - causing a "chain

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34 More correctly: An Ballistic Missile Early Warning System Radar connected to the White Alice Telecommunications Systems.

reaction" nuclear war - he said, "I hope [they](#) have as secure a system as we do." Just three days later the same mistake was repeated. The problem was finally traced to a forty-six-cent microchip.

From [Marc Ian Barasch](#): The Little Black Book of Atomic War. New York 1973.



- In 1980 alone there were three reported cases of [faults](#) in the computers that control the launch of [NATO](#) nuclear weapons.

## Genesis

"Who are you?" said the Prime Minister, opening the door.

"I am God," replied the stranger.

"I don't believe you," sneered the Prime Minister. "Show me a miracle."

And God showed the Prime Minister the miracle of birth.

"Pah," said the Prime Minister. "My scientists are creating life in test-tubes and have nearly solved the secret of heredity. Artificial insemination is more certain than your lackadaisical method, and by cross-breeding we are producing fish and mammals to our design. Show me a proper miracle."

And God caused the sky to darken and hailstones came pouring down.

"That's nothing," said the Prime Minister, picking up the telephone to the Air Ministry. "Send up a met. plane would you, old chap, and sprinkle the clouds with silver chloride crystals."

And the met plane went up and sprinkled the clouds which had darkened the world and the hailstones stopped pouring down and the sun shone brightly.

"Show me another," said the Prime Minister.

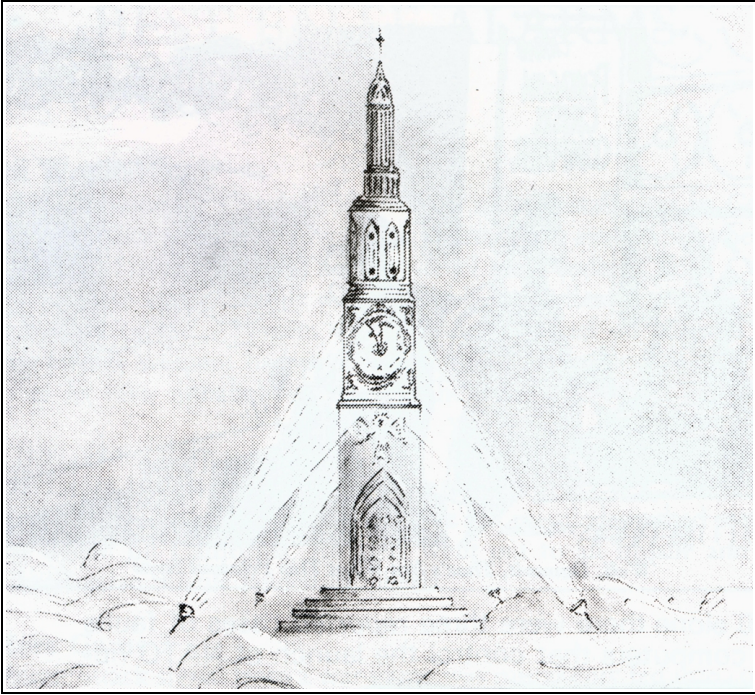
And God caused a plague of frogs to descend upon the land.

The Prime Minister picked up his telephone. "Get the Min. of Ag. and Fish," he said to the operator, "and instruct them to procure a frog-killer as [myxomatosis](#) killed rabbits."

And soon the land was free of frogs, and the people gave thanks to the Prime Minister and erected laboratories in his name.

"Show me another," sneered the Prime Minister.

And God caused the sea to divide.



**The Prime Minister picked up his direct-link-telephone to the Polaris submarine,**

**"Lob a few ICBMs into Antarctica and melt the ice-cap, please, old man."**

**And the ice-cap melted into water and the sea came rushing back.**

**"I will kill all the first-born," said God.**

**"Paltry tricks," said the Prime Minister. "Watch this." He pressed a button on his desk.**

**And missiles flew to their pre-ordained destinations and H-bombs split the world asunder and radio-activity killed every mortal thing.**

**"I can raise the dead," said God.**

**"Please," said the Prime Minister in his cardboard coffin.**

**"Let me live again."**

**"Why, who are you?" said God, closing the lid.**



**Brian Morris**  
**'Weekend Telegraph'**  
**29 October 1965**

Sir—I have never heard of Mr. Brian Morris, but his "Genesis" article in Weekend Telegraph is, to me, the perfect answer-in-a-nutshell to all the crazy out-pourings of our modern atheistic age. It is both profound and succinct, with both humour and tragedy.

May we hear more from Mr. Morris, please, and congratulations on Weekend Telegraph.

Yours faithfully,

(Mrs.) VALERIE A. ELLISTON.  
Hundon, Suffolk.

**Blasphemy**

Sir—As a regular reader of your newspaper I was profoundly shocked by the "Genesis" article in Weekend Telegraph. This article constitutes, in my opinion, statements amounting to blasphemy in the eyes of the many decent readers of your paper. I have been led to expect from The Daily Telegraph something better than this, and I trust that such an article will never again take up a portion of your excellent colour magazine.

It is with great reluctance that I write this letter, but I feel that many others will resent this

blatant affront to their so dearly-held convictions and that someone should speak up about this blight on your fine record.

Yours sincerely,

Glasgow.

ALAN J. GAMBLE.

"The Daily Telegraph"

6 November 1965

Sir—I cannot understand Mr. Alan J. Gamble's statement in the letter published on Nov. 6 that the Weekend Telegraph article "Genesis" by Brian Morris amounted to blasphemy. I thought it a brilliant piece of modern journalism, ironical and with a moral value, so shocking and true in its ending that I fail to see how anyone could be offended by the tone of reality in the article.

I would add that I am a practising Roman Catholic. I feel sure we will hear more of Mr. Morris in the future.

Congratulations on your enterprise in publishing this article.

Yours faithfully,

PATRICK ALLEYN.

St. Paul's Cray, Kent.

'The Daily Telegraph'

13 November 1965



## Comprehension:

1. Characterize the Prime Minister.  
In what way does his attitude to God change during the text?
2. Where did Brian Morris get the idea for God's miracles? (frogs, hailstorm, division of sea and killing all the first born)
3. It is generally believed that God is almighty. Do you agree with the Prime Minister that 'God's tricks are paltry' ? If so, what would you expect God to do?
4. Why do you think Brian Morris called his text Genesis? Wouldn't [Armageddon](#) be more appropriate? Armageddon: From the Bible, New Testament, Revelations 16.16. The day when the earth (and every living creature) is destroyed and a new one is created. Often used = nuclear holocaust.



*Kurt Vonnegut Jr., the American Novelist, is well-known for his pacifist views. He was a prisoner of war during the Second World War and had to assist in the excavating and cremation of the 135.000 dead bodies after the bombing of Dresden, where fire storms like those of a nuclear attack broke out. He describes his experiences in the novel Slaughterhouse 5. When the first convention of the European Peace and Disarmament Movements was to be held in Brussels in 1982 he was asked to contribute. He sent the manuscript of a "lecture" he gave in the Cathedral of St. John the Divine in New York. The secretary of the convention, Ken Coates, commented: "The piece is a gem. Opening that letter was nicer than being given a parcel of diamonds as big as marbles."*

# FATES WORSE THAN DEATH

*Kurt Vonnegut*

*Lecture at St. John the Divine*

*23 May 1982*

Good morning,

This is a pretty small church, but I guess I have to start somewhere. Actually, this is not my main line of work. Preaching in Cathedrals is just a hobby. I make up stories for a living.

I get my ideas from dreams. The wildest dream I have had so far is about *The New Yorker Magazine*. In this dream, the magazine has published a three-part essay by Jonathan Schell<sup>35</sup>, which proves that life on Earth is about to end. I am supposed to go to the largest Gothic cathedral in the world, where all the people are waiting, and say something wonderful — right before a hydrogen bomb is dropped on the [Empire State Building](#). People as far away as [Bridgeport](#)<sup>36</sup> will die instantly. Here is how I interpret the dream: I consider myself an important writer, and I think *The New Yorker* should be ashamed that it has never published me.

I will speak today about the worst imaginable consequences of doing without hydrogen bombs. This should be a relief. I am sure you are sick and tired of hearing how all living things sizzle and pop inside a radioactive fireball. We have known that for more than a third of this century — ever since we dropped an atom bomb on the yellow people of Hiroshima. They certainly sizzled and popped.

After all is said and done, what was that sizzling and popping, despite the brilliant technology which caused it, but our old friend death? Let us not forget that Saint Joan of Arc was made to sizzle and pop in old times with nothing more than firewood. She wound up dead. The people of Hiroshima wound up dead. Dead is dead.

Scientists, for all their creativity, will never discover a method for making people deader than dead. So if some of you are worried about being hydrogen-bombed, you are merely fearing death. There is

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<sup>35</sup> Jonathan Schell: author of *The Fate of the Earth*, see also [Living With Nuclear Weapons](#).

<sup>36</sup> Bridgeport: ab. 70 km away from N.Y.

nothing new in that. If there weren't any hydrogen bombs, death would still be after you. And what is death but an absence of life? That's all it is. That is all it ever can be.

Death is nothing. What is all this fuss about?

Let us "up the ante", as gamblers say. Let us talk about fates worse than death. When the Reverend [Jim Jones](#) saw that his followers in Guyana were facing fates worse than death, he gave them [Kool-Aid](#) laced with [cyanide](#)<sup>37</sup>. If our government sees that we are facing fates worse than death, it will shower our enemies with hydrogen bombs, and then we will be showered in turn. There will be plenty of Kool-Aid for everyone, in a manner of speaking, when the right time comes.

What will the right time look like?

I will not waste your time with trivial fates, which are only marginally worse than death. Suppose we were conquered by an enemy, for example, who didn't understand our wonderful economic system, and so [Braniff Airlines](#)<sup>38</sup> and [International Harvester](#) and so on all went bust, and millions of Americans who wanted to work couldn't find any jobs anywhere. Or suppose we were conquered by an enemy who was too cheap to take good care of children and old people. Or suppose we were conquered by an enemy who wouldn't spend money on anything but weapons for [World War Three](#). These are all tribulations we could live with, if we had to — although God forbid.

But suppose we foolishly got rid of our nuclear weapons, our Kool-Aid, and an enemy came over here and crucified us. Crucifixion was the most painful thing which the ancient Romans ever found to do to anyone. They knew as much about pain as we do about genocide. They sometimes crucified hundreds of people at one time. That is what they did to all the survivors of the army of [Spartacus](#), which was composed mostly of escaped slaves. They crucified them all. There were several miles of crosses. If we were up on crosses, with nails through our feet and hands, wouldn't we wish that we still had hydrogen bombs, so that life could be ended everywhere? Absolutely.

We know of one person who was crucified in olden times, who was supposedly as capable as we or the Russians are of ending life

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37 Jim Jones in Guyana: leader of religious sect. Gave out a poisoned tranquillizing drink called Jones' Flavor Aid or Kool-Aid thus killing himself and the entire sect.

38 Braniff International Airways busted in 1982.

everywhere. But he chose to endure agony instead. All he said was, "Forgive them, Father — they know not what they do."

He let life go on, as awful as it was for him, because here we are, aren't we?

But he was a special case. It is unfair to use Jesus Christ as an exemplar of how much pain- and humiliation we ordinary human beings should put up with before calling for the end of everything.

I don't believe that we are about to be crucified. No potential enemy we now face has anywhere near enough carpenters. Not even the Pentagon at budget time has mentioned crucifixion. I am sorry to have to put that idea into their heads. I will have only myself to blame if, a year from now, the Joint Chiefs of Staff testify under oath that we are on the brink of being crucified.

But what if they said, instead, that we would be enslaved if we did not appropriate enough money for weaponry? That could be true. Despite our world-wide reputation for sloppy workmanship, wouldn't some enemy get a kick out of forcing us into involuntary servitude, buying and selling us like so many household appliances or farm machines or inflatable erotic toys?

And slavery would surely be a fate worse than death. We can agree on that, I'm sure. We should send a message to the Pen-tagon: "If Americans are about to become enslaved, it is Kool-Aid Time." They will know what we mean.

I have never seen a human slave . But my four great-grandfathers saw slaves. When they came to this country in search of justice and opportunity, there were millions of Americans who were slaves.

The equation which links a strong defence posture to not being enslaved is laid down in that stirring fight song, much heard lately, "Rule Britannia". I will sing the equation:

"Rule, Britannia, Britannia rule the waves —" That, of course, is a poetic demand for a navy second to none. The next line explains why it is essential to have a navy that good:

"Britons never, never, never shall be slaves." It may surprise some of you to learn what an old equation that is. The Scottish poet who wrote it, [James Thomson](#), died in 1748 — one quarter of a century before there was such a country as the United States of America. Thomson promised Britons that they would never be slaves at a time when the enslavement of persons with inferior weaponry was a respectable

industry. Plenty of people were going to be slaves, and it would serve them right, too — but Britons would not be among them.

So that isn't really a very nice song. It is about not being humiliated which is all right. But it is also about humiliating others, which is not a moral thing to do. The humiliation of others should never be a national goal.

There is one poet who should have been ashamed of himself.

If the Soviet Union came over here and enslaved us, it wouldn't be the first time Americans were slaves. If we conquered the Russians and enslaved them, it wouldn't be the first time Russians were slaves.

And the last time Americans were slaves, and the last time Russians were slaves, they displayed astonishing spiritual strengths and resourcefulness. They were good at loving one another. They trusted God. They discovered in the simplest, most natural satisfactions, reasons to be glad to be alive. They were able to believe that better days were coming in the sweet by-and-by. And here is a fascinating statistic: they committed suicide less often than their masters did.

So Americans and Russians can both stand slavery, if they have to — and still want life to go on and on. Could it be that slavery isn't a fate worse than death.

After all, people are tough, you know? Maybe we shouldn't send that message to the Pentagon — about slavery and Kool-Aid time.

But suppose enemies came ashore in great numbers, because we lacked the means to stop them, and they pushed us out of our homes and off our ancestral lands, and into swamps and deserts. Suppose that they even tried to destroy our religion, telling us that our Great God Jehovah, or whatever we wanted to call Him, was as ridiculous as a piece of junk jewellery.

Again: this is a wringer millions of Americans have already been through — or are still going through. It is another catastrophe which Americans can endure, if they have to — and still, miraculously, maintain some measure of dignity, or self-respect.

As bad as life is for our Indians, they still like it better than death.

So I haven't had much luck, have I, in identifying fates worse than death. Crucifixion is the only clear winner so far, and we aren't about to be crucified. We aren't about to be enslaved, either — to be treated as white Americans used to treat black Americans. And no potential enemy that I have heard of wants to come over here to treat all of us

the way we still treat American Indians.

What other fates worse than death could I name? Life without petroleum?

In melodramas of a century ago, a female's loss of virginity outside of holy wedlock was sometimes spoken as a fate worse than death. I hope that isn't what the Pentagon or the Kremlin has in mind — but you never know.

I would rather die for virginity than for petroleum, I think. It's more literary, somehow.

Have there ever been large numbers of human beings of any sort who have not, despite everything, done everything they could to keep life going on and on and on?

Soldiers.

'Death before Dishonour' was the motto of several military formations during the Civil War — on both sides. It may be the motto of the Eighty-second Airborne Division right now. A motto like that made a certain amount of sense, I suppose, when military death was what happened to the soldier on the right or the left of you — or in front of you — or in back of you. But military death now can easily mean the death of everything, including, as I have already said, the blue-footed boobies of the [Galápagos Islands](#).

The webbed feet of those birds really are the brightest blue, by the way. When two blue-footed boobies begin a courtship, they show each other what beautiful, bright blue feet they have.

If you go to the Galapagos Islands, and see all the strange creatures, you are bound to think what [Charles Darwin](#) thought when he went there: How much time Nature has in which to accomplish simply anything. If we desolate this planet, Nature can get life going again. All it takes is a few million years or so, the wink of an eye to Nature.

Only humankind is running out of time.

My guess is that we will not disarm, even though we should, and that we really will blow up everything by and by. History shows that human beings are vicious enough to commit every imaginable atrocity, including the construction of factories whose only purpose was to kill people and burn them up.

It may be that we were put here on Earth to blow the place to smithereens. We may be Nature's way of creating new galaxies. We may be programmed to improve and improve our weapons, and to



believe that death is better than dishonour. And then, one day, as disarmament rallies are being held all over the planet, ka-blooey! A new Milky Way is born.

Perhaps we should be adoring instead of loathing our hydrogen bombs. They could be the eggs for new galaxies.

When I was a boy it was unusual for an American, or a person of any nationality, for that matter, to know much about foreigners. Those who did were specialists — diplomats, explorers, journalists, anthropologists. And they usually knew a lot about just a few groups of foreigners, Eskimos, maybe, or Arabs, or what have you. To them, as to the schoolchildren of [Indianapolis](#), large areas of the globe were [terra incognita](#).

Now look what has happened. Thanks to modern communications, we have seen sights and heard sounds from virtually every square mile of the land mass on this planet. Millions of us have actually visited more exotic places than had many explorers during my childhood. Many of you have been to [Timbuktu](#). Many of you have been to [Katmandu](#). My dentist just got home from [Fiji](#). He told me all about Fiji. If he had taken his fingers out of my mouth, I would have told him about the Galapagos Islands.

So we now know for certain that there are no potential human enemies anywhere who are anything but human beings almost exactly like ourselves. They need food. How amazing. They love their children. How amazing. They obey their leaders. How amazing. They think like their neighbours. How amazing.

Thanks to modern communications, we now have something we never had before: reason to mourn deeply the death or wounding of any human being on any side in any war.

It was because of rotten communications, of malicious, racist ignorance that we were able to celebrate the killing of almost all the inhabitants in Hiroshima, Japan, thirty-seven years ago. We thought they were vermin. They thought we were vermin. They would have clapped their little yellow hands with glee, and grinned with their crooked buck teeth, if they could have incinerated everybody in Kansas City, say.

Thanks to how much the people of the world now know about all the other people of the world, the fun of killing enemies has lost its zing. It has so lost its zing that no sane citizen of the Soviet Union, if we were to go to war with that society, would feel anything but horror if his



country were to kill practically everybody in New York and Chicago and San Francisco. Killing enemies has so lost its zing, that no sane citizen of the United States would feel anything but horror if our country were to kill practically everybody in Moscow and Leningrad and Kiev.



Or in Nagasaki, Japan, for that matter.

We have often heard it said that people would have to change, or we would go having world wars. I bring you good news this morning: people have changed.

We aren't so ignorant and bloodthirsty any more.

I told you a crazy dream I had — about *The New Yorker Magazine* and this cathedral. I will tell you a sane dream now.

I dreamed last night of our descendents a thousand years from now, which is to say all of humanity. If you are at all into reproduction, as was the Emperor [Charlemagne](#), you can pick up an awful lot of relatives in a thousand years. Every person in this cathedral who has a drop of white blood, is a descendent of Charlemagne.

A thousand years from now, if there are still human beings on Earth, every one of those human beings will be descended from us — and from everyone who has chosen to reproduce. In my dream, our descendents are numerous. Some of them are rich, some are poor, some are likeable, some are insufferable.

I ask them how humanity, against all odds, managed to keep going for another millennium. They tell me that they and their ancestors did it by preferring life over death for themselves and others at every opportunity, even at the expense of being dishonoured. They endured all sorts of insults and humiliations and disappointments without committing either suicide or murder. They are also the people who do the insulting and humiliating and disappointing.

I endear myself to them by suggesting a motto they might like to put on their belt buckles or tee-shirts or whatever. They aren't all hippies, by the way. They aren't all Americans, either. They aren't even all white people. I give them a quotation from that great 19th century moralist and robber baron, [Jim Fisk](#), who may have contributed money to this cathedral.

Jim Fisk uttered his famous words after a particularly disgraceful episode having to do with the [Erie Railroad](#). Fisk himself had no choice but to find himself contemptible. He thought this over, and then he shrugged and said what we all must learn to say, if we want to go on living much longer:

"Nothing is lost save honour."

I thank you for your attention.

### **Comprehension:**

1. List the various "fates" Vonnegut imagines.
2. Try to account for his choice of examples like e.g. crucifixion and details like e.g. "being sold like so many household appliances or inflatable erotic toys."
3. "That is a wringer millions of Americans have already been through" What Americans?
4. Explain what Vonnegut means by "perhaps we shouldn't send the message to the Pentagon - about slavery and Kool-Aid time", and summarise his arguments for that suggestion.

5. Discuss Vonnegut's optimistic view of the role of modern communications - e.g. as follows:  
Do we care more about our fellow humans in other, distant countries thanks to the new media?  
Do modern communications tend to create enemy images - or images of friends and good neighbours? Argue and exemplify.
6. Summarize briefly the "sane dream" Vonnegut presents - and discuss his motto.

## **NUCLEAR WEAPONS AND PREVENTING WAR**

**1** Nuclear weapons have transformed our view of war. Though they have been used only twice, half a lifetime ago, the terrible experience of Hiroshima and Nagasaki must be always in our minds. But the scale of that horror makes it all the more necessary that revulsion be partnered by clear thinking. If it is not, we may find ourselves having to learn again, in the appalling school of practical experience, that abhorrence of war is no substitute for realistic plans to prevent it.

**2** There can be opposing views about whether the world would be safer and more peaceful if nuclear weapons had never been invented. But that is academic; they cannot be disinvented.

Our task now is to devise a system for living in peace and freedom while ensuring that nuclear weapons are never used, either to destroy or to blackmail.

**3** Nuclear weapons are the dominant aspect of modern war potential. But they are not the only aspect we should fear.

Save at the very end, World War II was fought entirely with what are comfortably called "conventional" weapons, yet during its six years something like fifty million people were killed. Since 1945 "conventional" war has killed up to ten million more. The "conventional" weapons with which any East-West war would be fought today are much more powerful than those of 1939-1945; and chemical weapons are far more lethal than when they were last used widely, over sixty years ago. Action about nuclear weapons which left,

or seemed to leave, the field free for non-nuclear war could be calamitous.

**4** Moreover, whatever promises might have been given in peace, no alliance possessing nuclear weapons could be counted on to accept major non-nuclear defeat and conquest without using its nuclear power. Non-nuclear war between East and West is by far the likeliest road to nuclear war.

**5** We must therefore seek to prevent any war, not just nuclear war, between East and West. And the part nuclear weapons have to play in this is made all the greater by the facts of military power. The combination of geography and totalitarian direction of resources gives the Soviet Union a massive preponderance in Europe. The Western democracies have enough economic strength to match the East, if their peoples so chose. But the cost to social and other aims would be huge, and the resulting forces would still not make our nuclear weapons unnecessary. No Western non-nuclear effort could keep us safe against one-sided Eastern nuclear power.

**6** An enormous literature has sprung up around the concepts of deterrence in the nuclear age. Much of it seems remote and abstruse, and its apparent detachment often sounds repugnant. But though the idea of deterrence is old and looks simple, making it work effectively in today's world needs clear thought on complex issues. The central aim is to influence the calculations of anyone who might consider aggression; to influence them decisively; and, crucially, to influence them before aggression is ever launched. It is not certain that any East-West conflict would rise to all-out nuclear war: escalation is a matter of human decision, not an inexorable scientific process. It is perfectly sensible-indeed essential-to make plans which could increase and exploit whatever chance there might be of ending war short of global catastrophe. But that chance will always be precarious, whether at the conventional or the nuclear

level; amid the confusion, passions and irrationalities of war, escalation must always be a grave danger. The only safe course is outright prevention.

**7** Failure to recognise this complicated but crucial fact about deterrence-that it rests, like a chess master's strategy, on blocking off in advance a variety of possible moves in an opponent's mind-underlies many of the criticisms made of Western security policy. To

make provision for having practical courses of action available in nuclear war (or for reducing its devastation in some degree by modest civil defence precautions) is not in the least to have a "war-fighting strategy" or to plan for nuclear war as something expected or probable. It is, on the contrary, a necessary path to deterrence, to rendering nuclear war as improbable as we humanly can.

**8**The United Kingdom helped to develop NATO's deterrent strategy and we are involved in its nuclear aspects.... Whether we like the fact or not, and whether nuclear weapons are based here or not, our country's size and location make it militarily crucial to NATO and so an inevitable target in war. A "nuclear-free" Britain would mean a weaker NATO, weaker deterrence, and more risk of war; and if war started we would if anything be more likely, not less, to come under nuclear attack.

**9**The East-West peace has held so far for thirty-five years. This is a striking achievement, with political systems so sharply opposed and points of friction potentially so many. No-one can ever prove that deterrence centred on nuclear weapons has played a key part; but common sense suggests that it must have done. Deterrence can continue to hold, with growing stability as the two sides deepen their understanding of how the system must work and how dangers must be avoided. Not since the Soviet gamble over Cuba in 1962 have we come anywhere near the brink. It is entirely possible, if we plan wisely, to go on enjoying both peace and freedom-that is, to avoid the bogus choice of "Red or dead".recognise the success of deterrence is not to accept it as the last word in ensuring freedom from war. Any readiness by one nation to use nuclear weapons against another, even in self-defence, is terrible. No-one-especially from within the ethical traditions of the free world, with their special respect for individual life-can acquiesce comfortably in it as the basis of international peace for the rest of time. We have to seek unremittingly, through arms control and otherwise, for better ways of ordering the world. But the search may be a very long one. No safer system than deterrence is yet in view, and impatience would be a catastrophic guide in the search. To tear down the present structure, imperfect but effective, before a better one is firmly within our grasp would be an immensely dangerous and irresponsible act.

**Comprehension:**

1. This pamphlet from the British Ministry of Defence states that "abhorrence of war is no substitute for realistic plans to prevent it."
  - a. What is meant by that?
  - b. Why do you think it is important for the authors to emphasize that statement/point of view?
2. What would a conventional world war mean, compared to a nuclear war, according to the pamphlet?
3. In section nr 4 the text says why non-nuclear war inevitably leads to nuclear war. How is that?
4. Why is the military power of the Soviet Union considered such a threat to the Western democracies?
5. What is the central aim of deterrence?
6. How can/must such a deterrence be planned?
7. Critics of Western security policy fail to grasp the crucial fact about defence, the text says. What is the crucial fact?
8. Why did the United States start to talk about a limited nuclear war?
9. What does the text say about the wish to "wash British hands of nuclear affairs"?
10. Imagine the consequences of a 'nuclear-free' Britain?
11. Why (according to text) has peace been maintained in Europe for 35 years?
12. What is the ultimate threat to Britain's security? (See section 10, end passage)
13. Do the authors suggest any solution to the problem of the escalating arms race?

Suggestions for further individual/group/class work:

Imagine you are to appear in a panel discussion with a

spokesman for the British Ministry of Defence. Make a list of possible counterarguments to the ones listed in the pamphlet, viz:

- a) In the case of a 'nuclear-free' Europe, won't the Russians invade?
- b) Nuclear deterrence has kept the peace in Europe.
- c) Britain needs her own nuclear deterrent.
- d) Look what happened in the 1930's.
- e) Unilateral disarmament is asking for trouble.
- f) Peace activists are dancing to Moscow's tune.
- g) The Star Wars project will make the world safer? - (see [text](#))

## ON THE BEACH AT CAMBRIDGE<sup>39</sup>

There is no beach at Cambridge. No doubt Adrian Mitchell is referring to the well-known novel by Nevil Shute: *On the Beach* from 1957 about nuclear war survivors on an [Australian](#) beach, waiting for the radioactive cloud drifting towards them bringing certain death.

Nor are there any " regional commissioners" in Great Britain today - and, as you will see: the county of East Anglia doesn't seem to be there any more.

I am Assistant to the Regional Commissioner  
At Block E, Brooklands Avenue,  
Communications Centre for Region 4,  
Which used to be East Anglia.

I published several poems as a young man  
But later found I could not meet my own high standards

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<sup>39</sup> On The Beach at Cambridge is recorded by Henry Cow and Adrian Mitchell on *The Last Nightingale* (Re 1984).

So tore up all my poems and stopped writing.  
(I stopped painting at eight and singing at five.)  
I was seconded to Block E  
From the Ministry for the Environment.

Since there are no established poets available  
I have come out here in my MPC,  
(Maximum Protective Clothing),  
To dictate some sort of poem or word-picture  
Into a miniature cassette recorder.

When I first stepped out of Block E on to this beach  
I could not record any words at all.  
So I chewed two of the orange-flavoured pills  
They give us for morale, switched on my Sony  
And recorded this:

I am standing on the beach at Cambridge.  
I can see a group in their MPC  
Pushing Hoover-like and Ewbank-like machines  
Through masses of black ashes.  
The taller men are soldiers or police,  
The others, scientific supervisors.  
This group moves slowly across what seems  
Like an endless car park with no cars at all.  
I think that, in one moment,  
All the books in Cambridge  
Leapt off their shelves,  
Spread their wings  
And became white flames  
And then black ash.  
And I am standing on the beach at Cambridge.

You're a poet, said the Regional Commissioner,  
Go out and describe that lot.



The University Library-a little hill of brick-dust.  
King's College Chapel - a dune of stone-dust.  
The sea is coming closer arid closer.  
The clouds are edged with green.  
They are sagging low under some terrible weight.  
They move more rapidly than usual.

Some younger women with important jobs  
Were admitted to Block E  
But my wife was a teacher in her forties.  
We talked it over  
When the nature of the crisis became apparent.  
We agreed someone had to carry on.  
That day I kissed her goodbye as I did every day  
At the door of our house in Chesterton Road.  
I kissed my son and my daughter goodbye.  
I drove to Block E beside Hobson's Brook.  
I felt like a piece of paper  
Being torn in half.

And I am standing on the beach at Cambridge.  
Some of the men in their MPC  
Are sitting on the ground in the black ashes.  
One is holding his head in both his hands.

I was forty-two three weeks ago.  
My children painted me  
Bright-coloured cards with poems for my birthday.  
I stuck them with Blue-tack on the kitchen door.  
I can remember the colours.  
But in one moment all the children in Cambridge  
Spread their wings  
And became white flames  
And then black ash.  
And the children of America, I suppose.

And the children of Russia, I suppose.

And I am standing on the beach at Cambridge  
And I am watching the broad black ocean tide  
Bearing on its shoulders a burden of black ashes.

And I am listening to the last words of the sea  
As it beats its head against the dying land.

Adrian Mitchell

*Adrian Mitchell: British poet and dramatist. Wrote i.a. Man Friday.*

### **Comprehension:**

1. What seems to have happened in Cambridge and East Anglia?
2. Describe the situation and the poet's new job.
3. What kind of work is being performed, by whom, why?
4. What are we told about the poet's career and family relations?
5. Why did he have to part from his family, and how did he feel about it?
6. What thoughts and reflections has he while performing his job?

Suggestions for further individual/group/class work:

7. What are we told about the "after-the-bomb society"? (structure, measures, jobs, ethics)
8. Study and comment on: the structure of the poem, the use of tenses, imagery, the mood.
9. What is the message of the poem?

## Questions of Common Sense

"The principles are not that complex. You don't have to know the throw-weight of an SS-20 (Soviet missile) in order to reach reasoned judgements. The first principle is, can you win a nuclear war? No. Is there really any way to gain nuclear superiority? No. These are questions of common sense, not ones that require special, technological training."

- [Paul Warnke](#)

## Living with Nuclear Weapons - a contradiction in terms

A group of Harvard professors<sup>40</sup> recently authored a most pessimistic book, *Living with Nuclear Weapons*, which takes the position that reducing the world's nuclear stockpiles would jeopardize deterrence and actually make for a less stable world; that there can never again be a world without nuclear weapons.

[Jonathan Schell](#) in an article "The Abolition" in *The New Yorker* (Jan. 1984) addresses this pessimism with a unique, and I believe, most effective argument. The Harvard group have pointed to the fact that nuclear weapons have put an end to "war". No one can conquer another nation with

<sup>40</sup> Read: *The Harvard Nuclear Study Group*.

nuclear weapons. Both sides are certain of destruction.

The danger, of course, is that a war may erupt, unwanted and unplanned. This danger is increased rather than lessened by every new electronic "improvement", each of which works to shorten the so-called "lead-time" (now only six or seven minutes), the time during which we must decide if the computer is really correct, when it says the enemy is attacking. There have been literally hundreds of these computer errors, and yet, here we are, almost, if not already, at the point where we must allow these mindless computers themselves to launch a counter attack, the so-called "launch on warning".

Schell's analysis is that, yes, deterrence has worked, but the weapons themselves are too dangerous. It's true, he says, that we can never get rid of the knowledge of how to make the bomb, but conceivably we can (we must) get rid of the bombs themselves. We can still have deterrence in the form of the knowledge of how to make them. Deterrence can be based on knowing that any nation violating such an agreement would be sure of the rapid nuclear re-arming of not just the United States and the Soviet Union, but

of many nations. The dangerously short lead-time could be increased from six or seven minutes to six or seven weeks.

By abolishing the weapons, but not the knowledge, we would lessen at once the danger of destroying our entire eco-system by a [nuclear winter](#), by massive radioactive fallout and by damage to the ozone layer. Jonathan Schell has the wisdom to see that "living with nuclear weapons" is a contradiction in terms and cannot be part of the solution.

*Lowell Brown, M.D., Charlottesville, Virginia 22901.  
(Bulletin of the Atomic Scientists, May 1984)*

## THREE MINUTES TO MIDNIGHT

*From Bulletin of the Atomic Scientists, January 1984*

As we enter the new year, hope is eclipsed by foreboding. The accelerating nuclear arms race and the almost complete breakdown of communication between the superpowers have combined to create a situation of extreme and immediate danger.

In response to these trends and as a warning of where they lead, we have moved the Bulletin's "[doomsday clock](#)" forward by one minute - to three minutes before midnight. It is a measure of the gravity of the current situation that only once in our 39-year history - in 1953 in response to the advent of the hydrogen bomb - have we seen fit to place the warning hand any closer to midnight than it stands to-day. Over the last decade the clock has moved steadily forward, never back. We last advanced it three years ago in response to the development by the superpowers of nuclear weapons designed for war-fighting rather than

war-deterrence. Since then this trend has only accelerated, carrying us ever deeper into a new, more dangerous phase of the arms race. Captives of a tortured logic, the superpowers are pursuing security by means of weapons and strategies that can only produce insecurity. In so doing they are collaborating in an assault upon the basis of the only true security to be had at this point in history : mutual deterrence grounded on the knowledge that to wage nuclear war is to commit national suicide. The growing momentum of the arms race over the last three years would be reason enough to reset the clock. But it does not stand alone; something else has been happening during these years, and especially over the last few months, something we view with great alarm. It is a process George Kennan characterized some years ago as 'the militarization of thought and discourse'. And it is far advanced (...)

The leaders of the nuclear powers talk and act as though they were prepared to use these weapons under a variety of circumstances which are all too plausible. Every resort to force is being justified by its perpetrators as the pursuit of some higher virtue: liberation, self-determination, social and economic justice. Thus, the deployment of the SS20 becomes a 'defensive reaction' and the MX missile a 'peacemaker'. (...) Meanwhile, the poor nations become poorer while the rich ones develop even more effective means of squandering the Earth's resources in pursuit of greater riches. Such a situation is clearly unstable. (...)

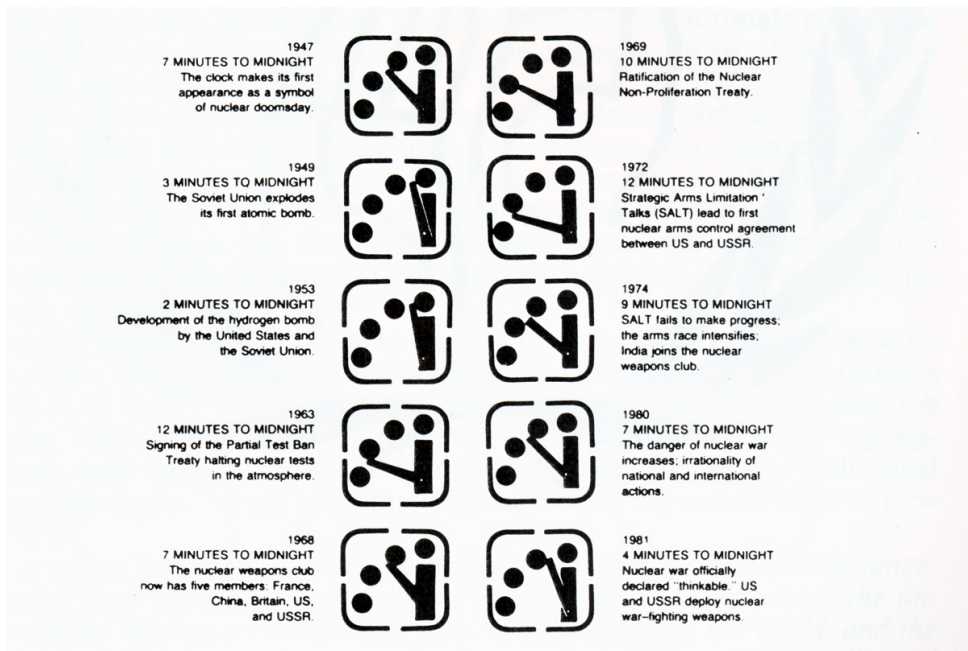
The most heartening development of the last few years has been the great upsurge of public concern about the nuclear arms race. Millions throughout the world have become roused, have undertaken to educate themselves, and sustained by a belief in the power of argument and moral witness, have sought to engage the issue politically. It would be tragic if they were now to lose heart.

The movement of the clock should thus not be construed as a counsel of despair. It is an expression of alarm, a warning, a call to attention. Let us also make it an occasion for rededication to the effort to bring the resources of our culture - language and rational argument, the method of science and the lesson of history - to bear on the arms race. The odds may be long. But it is our deepest conviction, as scientists and citizens, that there is no other way.

The Editors

# THE OFFICIAL DOOMSDAY CLOCK

## Running a Little Fast



*Illustration by Patty Chenis*

"Minutes to Midnight," published by The Bulletin of the Atomic Scientists.



## REVERSING THE ARMAMENT PROCESS

*"Since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed."*

(Introduction to the UNESCO [constitution](#))

In November 1984 the United Nations' General Assembly approved a resolution named the [Declaration of the Right of Peoples to Peace](#).

In the usual verbose style the resolution asserts a simple matter of course, an obvious human right - like the right to life, to work, to food, to leisure. The same resolution, however, emphasizes a necessary prerequisite: "that ensuring the exercise of the right of peoples to peace demands that the policies of states be directed towards the elimination of the threat of war, particularly nuclear war, the renunciation of the use of force in international relations and the settlement of international disputes by peaceful means on the basis of the Charter of the United Nations"; - and then, it is *no longer* such a simple *matter of course*.

Ever since its foundation, disarmament has been on the agenda of the United Nations, but although it is proclaimed as the ultimate goal of the major powers, the world has seen just the opposite. *So far, there has been no [disarmament](#) at all anywhere.* Negotiations about disarmament seem to be almost exclusively a matter to be settled between the two Super Powers alone. The member states of the United Nations have not been able to enforce their collective will on the Super Powers, and anyone who thought they might be able to, is just naive. What then, can we expect the world organization comprising 159 states of such unequal status as Malta and the USSR, China and Luxembourg, to do for world peace?



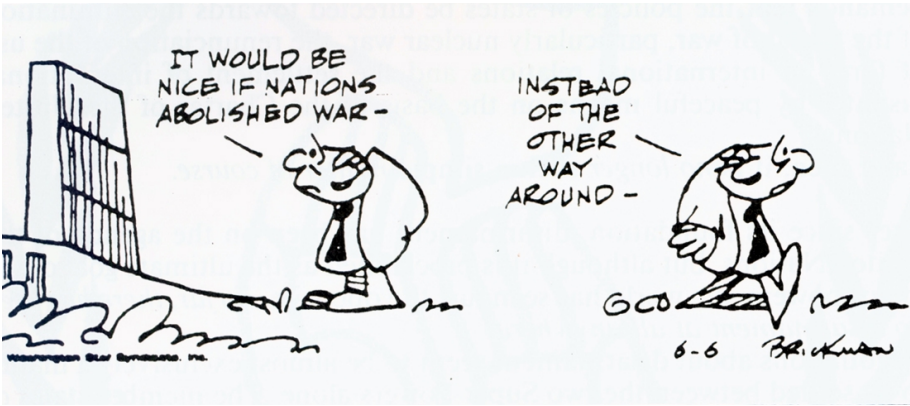
Lasting peace has very much to do with justice, equality, satisfying people's basic needs, mutual understanding and confidence, and UN agencies like ILO, WHO, FAO, UNICEF, IDA, UNESCO are doing a good job here. They work under the auspices of the supra-national world organisation, and thus at times, against the immediate interests of individual member states. As stated in the introduction to the constitution of UNESCO,

*"..a peace based exclusively upon the political and economic arrangements of governments would not be a peace which could secure the unanimous, lasting and sincere support of the peoples of the world, and the peace must therefore be founded, if it is not to fail, upon the intellectual and moral solidarity of mankind."*

The United Nations, thus, becomes a forum of world public opinion in which the voice of the peoples of the world can be heard over and above the individual national governments, as demonstrated so aptly and critically by UN Secretary General Perez de Cuellar in the following text.

### **Comprehension:**

1. Why is the Right of Peoples to Peace no simple matter of course?
2. Why cannot a majority of member states force their will on the superpowers?
3. Discuss why disarmament has so far been a failure.
4. What did the founders of UNESCO envisage as prerequisite of a lasting peace?
5. Comment on the quotation from the UNESCO constitution.



## BY WHAT RIGHT?

*United Nations, Press Release, 12th Dec. 1984*

Following is the text of a statement on disarmament questions to be made to the General Assembly this afternoon by Secretary-General [Javier Pérez de Cuéllar](#):

You have before you at this session 64 resolutions dealing with disarmament. During the past weeks in the First Committee, your able and dedicated representatives have worked diligently to devise resolutions on almost every aspect of nuclear and conventional disarmament and arms limitation. Their efforts have been painstaking and thorough.

I believe I would be failing in my responsibility as Secretary-General, however, if I did not take this occasion to voice my alarm with the current state of disarmament endeavours in the world. We must ask ourselves if we are truly committed to the first precept of the United Nations [Charter](#), "to save succeeding generations from the scourge of war."

The [Charter](#) gives both the General Assembly and the Security Council responsibility for considering disarmament and the regulation of armaments. Today, there is no more important task before us. The threat of nuclear catastrophe is not one issue among many. Preventing such a horror is the pre-condition of all our endeavours. The great task before this world organization, the challenges of economic and social

development, progress in human rights, the construction of a world of justice and human dignity - all will be in vain if we fail to prevent nuclear disaster. Imperfect as it may be, the United Nations is the only existing expression of the entire international community. The common aspirations of the world's people must be articulated here. And none is more fundamental than the survival of humanity. I will not rehearse once more the terrifying statistics that seem to have numbed us with their repetition. Suffice it to say that a nuclear war could never remain limited and could never be won. Its effects would not be confined to the nuclear adversaries, but would threaten the existence of all the peoples on this earth. It could lead to the extinction of humanity. Domsday scenarios need not be proven: the existence of the risk is enough. For the worst only needs to happen once.

## **BY WHAT RIGHT?**

As I look across this hall, I see the delegations of 159 member nations. Almost all the world's peoples are represented here. And all of them - all of us - live under the nuclear threat. As Secretary-General of this organization, with no allegiance except to the common interest, I feel the question may justifiably be put to the leading nuclear-weapon powers: by what right do they decide the fate of all humanity ? From Scandinavia to Latin America from Europe and Africa to the Far East, the destiny of every man and woman is affected by their actions. No one can expect to escape from the catastrophic consequences of a nuclear war on the fragile structure of our planet. The responsibility assumed by the Great Powers is now no longer to their populations alone: it is to every country and every people, to all of us.

## **THERE CAN BE NO GREATER ARROGANCE**

No ideological confrontation can be allowed to jeopardize the future of humanity. Nothing less is at stake: today's decisions affect not only the present, they also put a risk to succeeding generations. Like supreme arbiters, with our disputes of the moment we threaten to cut off the future and extinguish the lives of the innocent millions as yet unborn.

There can be no greater arrogance. At the same time, the lives of all who lived before us may be rendered meaningless. For we have the power to dissolve in a conflict of hours or minutes the entire work of civilization, with all the brilliant cultural heritage of humankind.

For almost 40 years we have lived under the nuclear shadow. Many have claimed that it alone has kept peace in the world. If nuclear weapons are indeed peace-keepers, does it follow that they ought to be acquired by every nation on earth? On the contrary, it is clear that to rely on nuclear deterrence is to accept a perpetual community of fear. That is very far from the community of human worth and understanding foreseen by the United Nations Charter.



## **NUCLEAR DETERRENCE NEITHER DESIRABLE – NOR FEASIBLE**

It is neither desirable, nor feasible in the long term, to find true stability through nuclear deterrence. It is not desirable because in the long term human values are inconsistent with the threat to bring about the indiscriminate death of our fellow men and women. No humane society that recognizes individual worth and dignity can contemplate such an action. Conversely, the very fear and hatred of an adversary believed to be capable of carrying out such an attack would destroy the basis of a civilized society.

Even if we ignore its inhuman aspects, can we really expect stability in the long run from a balance of fear and the suspicion that it breeds ? With the accelerating pace of military technology, the need to counter each new threat will become ever more frantic and desperate. Every perceived advantage will lead to fears of first-strike capability and the resulting temptation, at a time of great crisis, to launch a pre-emptive attack. And will our scientific vanity allow us to forget the double fallibility we face from human and technological error ? Offensive capacity must be reduced. Ultimately, however, there is no deterrence since any initiation of nuclear hostilities would be to no one's advantage. This is made cruelly clear by suggestions that a "nuclear winter" could follow a nuclear strike, even without any retaliation. To launch any nuclear attack could then indeed be suicide. The fruits of such violence would fall equally and with grim justice on the initiator and the victim alike.

## **BOTH SIDES HAVE AN INTEREST IN THE OTHER'S SAFETY**

It is not for me to make detailed observations on the course of the negotiations to be undertaken. However, it seems clear that fundamental security needs have to be acknowledged and taken into account. Paradoxically, both have an interest in the other's security since insecurity can only lead to mutual peril and to pre-emptive considerations. Given the enormous complexity of today's weaponry and varying composition of arsenals, advantages in different spheres will have to be balanced against each other. Finally, serious talks can only take place at the negotiating table and not through the airwaves of the media.

The international community will no longer be reassured by the mere appearance of progress. United Nations Member States have at their disposal the world's only multilateral negotiating body for disarmament, the [Conference on Disarmament](#) at [Geneva](#). I have said it on more than one occasion that its endeavours should not be made to depend upon progress on the bilateral side.

Moreover, we can make contribution to the bilateral process in various ways. I appeal for a renewed effort towards a comprehensive test-ban treaty. No single multilateral agreement could have a greater effect on limiting the further refinement of nuclear weapons. A comprehensive

test-ban treaty is the litmus test of the real willingness to pursue nuclear disarmament. Is it wise to develop new classes of even more lethal, even more technically complex weapons, whose control is even more difficult to verify ? We are at the point of leaving the decision on humanity's future to the automatic - and fallible - reactions of computers. Talks on a comprehensive test ban have been in abeyance for too long and their value has been questioned.

As with all arms-limitation negotiations, there will never be a perfect time to begin them in the opinion of all sides. The time to recommence these talks is now: they should not be delayed any further.

## **BAN ON SPACE WEAPONS**

The time is equally pressing for talks on space weapons. It seems that where weapons are concerned, the only way to prevent a race is to prevent its starting. Once the race is under way, agreement is far more difficult. And the winner enjoys only a few, insecure moments of victory before the other side catches up, leaving both to look back over yet more wasted human effort and ingenuity. There is no final advantage in the arms race. It is therefore crucial that a ban of weapons in the new theatre of outer space be concluded at the earliest possible time, before it is once again too late.

Next year is the fortieth anniversary of the United Nations. It is also the fortieth anniversary of the first and only use of nuclear weapons, at Hiroshima and Nagasaki. While we have so far avoided global [conflagration](#), we have made only halting and inadequate progress in disarmament or arms limitation over these past 40 years. Discussions have taken on a life of their own. All too often it seems as if the players are only moving their lethal pawns in a global chess game. We cannot calculate the quantity of our precious and limited resources that has already been poured into the endless arms race.

## **DISARMAMENT AND DEVELOPMENT ARE LINKED**

At a time of uncertainty for the young and despair for the poor and the hungry, we have truly mortgaged our future to the arms race - both the nuclear and the conventional. Several brilliant studies have shown us how expenditure on arms distorts our economies. We know that

development will be a casualty of the arms race. In this sense, the arms trade impoverishes the receiver and debases the supplier. Here there is a striking resemblance to the drugs trade. Yet we continue on the same course even when faced with the silent genocide of famine that today stalks millions of our fellow men and women. The international community has to focus and act on the link between disarmament and development. We should take concrete and far-sighted steps towards the conversion of arms industries from military to civilian production. And we should begin to redress some of the enormous imbalance between research on arms and research on arms limitation and reduction.

## **THE RESPONSIBILITY OF EVERY MAN AND WOMAN**

Many words have been spoken in the cause of disarmament. We are all aware of the goals, as outlined in the first special session's Final Document. Only the political decisions of Governments can take us towards the realization of these goals. And only the peoples of the world can urge their Governments to move in that direction. The Charter of the United Nations speaks of "We, the peoples", since it was to fulfil their hopes that this Organization was created. Every person on this earth has a stake in disarmament. In the nuclear age, decisions affecting war and peace cannot be left to military strategists or even to Governments. They are indeed the responsibility of every man and woman. And it is therefore the responsibility of all of us in this chamber to break the cycle of mistrust and insecurity and respond to humanity's yearning for peace.

*To the Adults.*

*Well you adults have three minutes left to solve your nuclear dilemma. I wish you luck. I hope that someday I'll be able to help you, but from what I've seen in these 16 years, I don't really want to grow up. I like being a risk taking naive youth, discovering major solutions and watching them work on a less major scale. You adults take a very simple problem and turn it into a very complicated, confusing and dangerous mess. For example, Carl Sagan, an adult, sees "The Day After", and says: "Well, the movie certainly illustrates the unacceptability of nuclear warfare", while Tamara Manning, a youth, says, "Well, nuclear warfare certainly illustrates the unacceptability of war". Do we need to live in fear of complete annihilation of our species to prove to ourselves that we are all on this planet together, and that if we don't trust each other then we'll cease to exist? If so, then this threat is serving a definite purpose. War is just a slow form of suicide. In killing another man we are killing ourselves by depriving our race of the contributions that man would make. We must realize that the only way towards a peaceful existence is through trust and communication. If that fact is not realized, then man's timeless question "Why? will be eternally silenced by a nuclear because! We have a choice. We've always had it.*

*Three, two, one....*

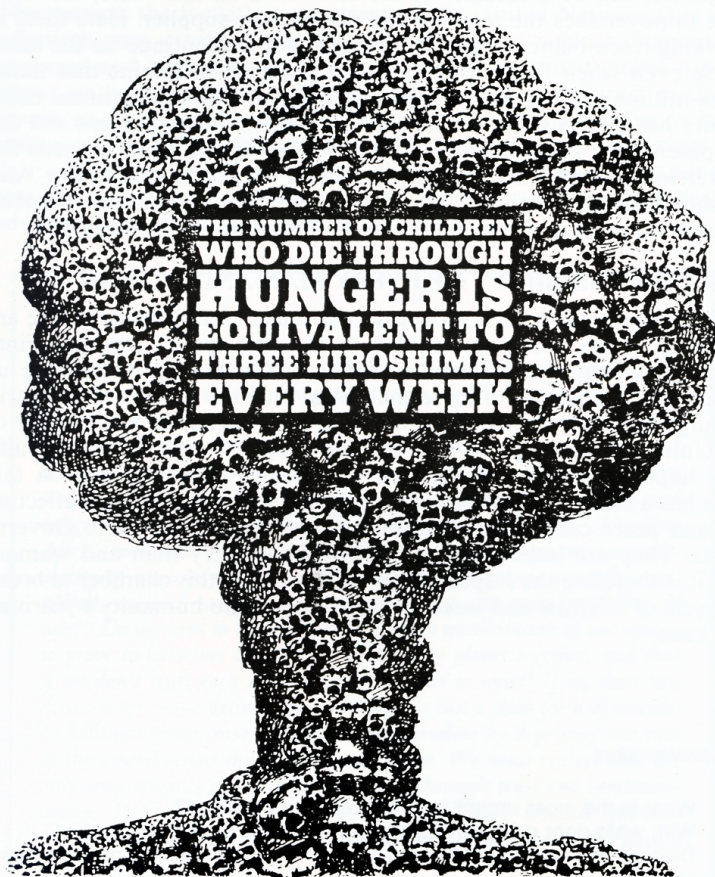
*Tamara K. Manning Glen Ellyn, Illinois 60137*

### **Comprehension:**

1. What is the most urgent task of the United Nations?
2. With what right does de Cuellar use the word arrogance ?
3. Discuss the arguments for and against "stability through nuclear deterrence".
4. What role can the U.N. play as to negotiations for disarmament etc.?



5. What is de Cuellar's attitude to space weapons? - and why?
6. "Development will be a casualty of the arms race". Explain and discuss.



## THE PEACE PROCESS

Since no "disarmament process" has so far been initiated by the international 'machinery of peace', (be it the CD, SALT, MFBR and CSCE, or the Stockholm Conference and US - SU Geneva Summits) - the peoples must take the matter into their own hands. They need not be paralyzed or become apathetic; they can rise in protest and come forward with alternatives. And this is what this chapter sets out to illustrate:

How a Peace Process is gradually developing through Detente from Below, spreading both in the West and the East, carried forward by a desire to do away with cold war, bloc thinking, militarization of daily life (and space!) and eventually to attain the goal of a peaceful world of justice and co-operation.

### PEACE MOVEMENTS IN THE WEST

Throughout history kings and governments have decided about war or peace. The history of organized [peace](#) efforts '[from below](#)' is little more than a hundred years old<sup>41</sup>, and is not nearly as well known as that of wars. But with the gradual attainment of political and economic rights came a rising participation in public affairs and the formation of trade unions and other professional organizations.

In Denmark the first peace association was founded in [1882](#) ([Fredrik Bajer](#))<sup>42</sup>, peace conferences were held in the Hague [1899](#)

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41 [Anthony Benezet](#) founded the first known peace group: [Friendly Association for Gaining and Preserving Peace with Indians by Pacific Measures](#) in 1756.

42 New research by Professor Norbert Götz suggest that organized Danish peace work is older. Danish women joined in 1850 the so-called Olive Leaf Societies. These societies, [as the [Olive Leaf Circle](#) in New Britain or the Olive Leaf Mission in London -HT], which might be regarded as the first

and [1907](#), ideas of non violent civil disobedience (Quakers, Gandhi), pacifism and disarmament spread in wider circles. French and German workers were ready to refuse to produce arms and fight each other in 1914. In 1915 the [Women's International League for Peace and Freedom](#) was founded, and later came the pacifist association [War Resisters International](#). If the hopes the peoples of the Earth attached to organizations like the League of Nations after World War I and the United Nations after World War II have been frustrated (the world has seen more than 140 armed conflicts since the end of World War II), the emergence of a vast number of non-governmental organizations (NGOs) may be taken as a sign that the peoples refuse to accept the dangerous games played in the corridors of power. The existing NGOs have been joined by important new ones like The World Peace Council, The Women's International Democratic Federation, World Federalists, [World Federation of United Nations Associations](#), [Oxfam](#) and a number of similar local organizations or branches.

[Appeals](#) by concerned scientists like [Bohr](#), Einstein, [Russell](#) in the [50s](#), the [Aldermaston Marches](#) and their successors in the [60s](#), the Vietnam War protests in the [70s](#) are landmarks in the history of the peace movement. But it was the NATO "twin-track" decision of Dec. 1979 that really set things in motion. The prospect of having 572 new cruise missiles and Pershing Us deployed in Western Europe - which could reach Eastern territory in a matter of 4-9 minutes - called for renewed protest actions by the existing peace movements, and hundreds of new peace groups sprang to life in almost all European countries, e.g. No to Nuclear Weapons (NtA) in Denmark and other Scandinavian countries. A common platform for the majority of Western

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women's peace movement in the world, were women's circles associated with [Burrill's](#) League of Universal Brotherhood. Matts Mattson Paavola knows Elihu Burrill: A Transnational Perspective on Nineteenth-Century Peace Activism in Northern Europe. PEACE & CHANGE, Vol. 35, No. 2, April 2010.

European peace movements is the so-called END document, which states the position of the independent European peace movements, not only to the military policy of the NATO countries, but also sets up goals for a new arrangement or peace order for the whole of Europe, thus taking up a critical stand against the armament process and the restrictive attitudes to dissenters in the countries in Eastern Europe. This document is reprinted below (slightly abbreviated).

### **Comprehension:**

1. Find out what is meant by CD, SALT, MFBR, CSCE, Stockholm conference, Helsinki agreement, (see p.174ff)
2. What kind of activities have the peace movements taken up alongside with and after the mass demonstrations?

### **Appeal for European Nuclear Disarmament**

A draft of the appeal, written by E.P. Thompson, the eminent Oxford historian, was approved by British peace movements like CND, END, Pax Christi, and then discussed by peace movements in other European countries. The final version, from which the following extracts are taken, was launched in April 1980 and has served as a basic document for much of the European peace work since then.

We are entering the most dangerous decade in human history. A third world war is not merely possible, but increasingly likely. (...)

Over the years, public opinion has pressed for nuclear disarmament and détente between the contending military blocs. This pressure has failed. (...)

We are now in great danger. Generations have been born beneath the shadow of nuclear war, and have become habituated to the threat. Concern has given way to apathy. Meanwhile, in a world living always under menace, fear extends through both halves of the European continent. The powers of the military and of internal security forces

are enlarged, limitations are placed on free exchanges of ideas and between persons, and civil rights of independent-minded individuals are threatened, in the West as well as in the East.

We do not wish to apportion guilt between the political and military leaders of East and West. Guilt lies squarely upon both parties. Both parties have adopted menacing postures and committed aggressive actions in different parts of the world.

The remedy lies in our own hands. We must act together to free the entire territory of Europe, from Poland to Portugal, from nuclear weapons, air and submarine bases and from all institutions engaged in research into or manufacture of nuclear weapons. We ask the two superpowers to withdraw all nuclear weapons from European territory. (...)

At the same time we must defend and extend the right of all citizens, East or West, to take part in this common movement and to engage in every kind of exchange.

We appeal to our friends in Europe, of every faith and persuasion, to consider urgently the ways in which we can work together for these common objectives. We envisage a European-wide campaign, in which every kind of exchange takes place; in which representatives of different nations and opinions confer and co-ordinate their activities; and in which less formal exchanges, between universities, churches, women's organizations, trade unions, youth organizations, professional groups and individuals, take place with the object of promoting a common object: to free all Europe from nuclear weapons. We must begin to act as if a united, neutral and pacific Europe already exists. We must learn to be loyal, not to 'East' or 'West', but to each other, and we must disregard the prohibitions and limitations imposed by any national state.

It will be the responsibility of the people of each nation to agitate for the expulsion of nuclear weapons and bases from European soil and territorial waters, and to decide upon its own means and strategy, concerning its own territory. These will differ from one country to another, and we do not suggest that any single strategy should be imposed. But this must be part of a trans-continental movement in which every kind of exchange takes place. We must resist any attempt by statesmen of East or West to manipulate this movement to their own advantage. We offer no advantage to either NATO or the Warsaw

alliance. Our objectives must be to free Europe from confrontation, to enforce détente between the United States and the Soviet Union, and, ultimately, to dissolve both great power alliances.

In appealing to fellow-Europeans, we are not turning our backs on the world. In working for the peace of Europe we are working for the peace of the world. Twice in this century Europe has disregarded its claims to civilization by engendering world war. This time we must repay our debts to the world by engendering peace.

This appeal will achieve nothing if it is not supported by determined and inventive action, to win more people to support it. We need to mount an irresistible pressure for a Europe free of nuclear weapons. (...)

### **Comprehension:**

1. Why was the END-appeal launched, and what goals do the supporters hope to attain?
2. What remedy does the appeal suggest for the threatening situation in Europe?
3. How do you think the superpowers look upon the END-appeal and its objectives?

The independent peace movements of the West co-operate about policy and practical measures through the International Peace Coordination and Communication centre IPCC (c/o IKV, The Hague p.149). The common meeting ground is the END-appeal and the Annual Conventions. Some spectacular events have been the huge protest demonstrations in e.g. Bonn, Amsterdam, London in 1981-83 rallying over 300,000 protesters each year; the peace marches e.g. Copenhagen-Paris 1981, the women's peace camps at [Greenham Common](#) (England), Ravnstrup (Denmark). But the media coverage is no proper yardstick for the inventiveness and scope of the peace initiatives.

"The peace movement in the West is no uniform phenomenon", says Danish peace activist veteran [Judith Winther](#), "but its strength is that it is working internationally and that its knowledge is international. It is cooperating both on the practical

and on the theoretical level across the borders. Furthermore it has built up contacts all over the world, from the USA to Japan, from the Arctic area to the islands of the Pacific. And it has gone beyond the East-West front line cooperating with independent peace groups in Eastern Europe and the Soviet Union as well as trying to conduct a dialogue with the official Peace Committees there.

What then has been accomplished? Apparently little. Both in England and in West Germany and Italy the missiles have been deployed while similar deployments are being made in Czechoslovakia and the GDR. On the other hand much has been achieved in the political field. Where before, military decisions were made in closed NATO circles, the planning and strategies have now been brought to the light of the public and been subject to sometimes heated discussion. And where before, only a small group of left-wing politicians in their parliaments objected to the ongoing rearmament, the West-European parliaments are now split as far as their attitudes to defence issues are concerned."

Whereas peace movements in East and West agree that NATO armament and missile deployment are dangerous, some groups in the West will not agree to the END appeal and be critical of Soviet rearmament. In accordance with the attitude of the World Peace Council, Soviet armaments are looked upon as purely defensive and responsive to US moves. Thus it is not proper to talk about the peace movement of e.g. Denmark, (although the main groups do co-operate about larger common initiatives), and the adherents to the END appeal are usually termed '[independent](#)'.

The peace movements have different bias and strength according to tradition and circumstances, whether they be of religious, trade union, professional origin, or comprise women alone, concerned scientists, environmentalists or just young and old people everywhere on earth. A few names may illustrate the range: IKV, Interkerkelijk Vredesberaad (Inter-Church Peace Council, Holland), CND, Campaign for Nuclear Disarmament



(Great Britain), Aktion Sühnezeichen (Atonement for Nazi-Germany's Atrocities, West Germany), Nuclear Freeze, Ground Zero (USA)<sup>43</sup>, Nuclearfree Pacific (New Zealand and Polynesia).

## PEACE MOVEMENTS IN THE EAST

The set-up of the peace movements of the Soviet Union and its dependencies in Eastern Europe is different in principle, in accordance with the ideas of the relation between the State and the Citizens. Here, the peace movement is an integral part of the establishment, and the activities of the peace movement are directed by the official Peace Committees, who work together in the World Peace Council, which is open to participation from all countries. These committees have broad popular support, and according to a socialist way of thinking the peace committees have little reason to be critical of their governments, including their military strategies, since socialism is identified with peace.

### Message from Moscow

*"Message to the Peoples, Parliaments, and Governments of All Nations on the 40th Anniversary of the Ending of World War II from The Central Committee of the CPSU and the Council of Ministers of the USSR":*

"The Earth is the common home of all peoples and of all humanity. The Soviet people need no foreign land. We do not impose our outlook and our way of life on anybody else. The heralds of the "crusade" and "psychological warfare" are wasting their time trying to misguide the international community by stories about a "Soviet military threat". The record of history and the hard facts of today speak of something entirely different. The Soviet Union has never attacked anybody, it has

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<sup>43</sup> Ground Zero is one of the best-known US peace movements, about the name, see [Glossary of Technical Terms](#).



itself had to repel aggression more than once. The Soviet people need to have a peaceful environment for their creative endeavour and for the continued advancement of their society of developed Socialism. General and complete disarmament, a safe and just peace are our ideal and our unflinching concern. The maintenance of peace has all along been the supreme objective of the Communist Party and the Soviet State.

We call upon the governments of the nations of Europe, the US and Canada to take effective steps towards completely clearing the European continent both of medium-range and theatre nuclear weapons. Europe must also get rid of chemical weapons. The creation of nuclear-free zones in the Balkans, in the North of Europe and in other parts of the continent, and a pledge not to increase and to reduce military spending would contribute towards strengthening peace and security here. (...)

Considering the high mission of all nations, their parliaments and governments as regards the maintenance of world peace, and conscious of the responsibility of the destinies of peace and humanity, the Soviet Union is calling upon all peoples, parliaments and governments to hearken to the voice of reason, and - by full-scale common action - to stop the slithering towards the abyss of nuclear disaster, to bar the way to another war and to press for nuclear arms to be totally abolished. The Soviet Union is prepared to consider any initiative and any proposal in favour of peace."

### **Comprehension:**

1. Try to point out similarities and differences between the Soviet message and the END-appeal (aims, choice of words, addressees; your own impression).
2. Give a fair description of and comment on the self-portrait of the Soviet Union and its peace initiatives. Compare with the article "What about the Russians?" (p. 27).

## **DISSENTERS**

Independent groupings like the small Group to Create Confiden-

ce Between the USA and the Soviet Union in [Moscow](#) and the [Charter 77](#) people in Czechoslovakia or the numerous Church groups in East Germany, (rallying under the badge [Swords into Ploughshares](#)), are often accused of being subversive and risk punishment.

Here is an extract from a statement made by members of the Czech Human Rights Group, Charter 77, addressed to the 4th END convention and published in END Bulletin June 1985:

Dear Friends,

It is forty years since there was a war on European soil.

Europe has not been a continent of peace. Far from it, Europe has been one of the main points of friction between the two power blocs, tension has been a permanent feature throughout the period, thereby posing a threat to the entire world. (...) Our common hope, therefore, lies in overcoming this division. This can only be achieved through a conscious decision by all to gradually transform the very political realities which are responsible for the present situation (...). A process of change will call for great sensitivity. It cannot be accompanied by threats of achieving superiority on either side.

The Conference on Security and Cooperation in Europe and its Final Act, signed in Helsinki are like the subsequent talks in Madrid not just an acknowledgement of the status quo, but also constitute a programme of European and Euro-American cooperation. (...)

The requirement that governments should fulfill all their undertakings and obligations has not been made full use of by the peace movement. Such binding agreements sanctioned by international law constitute a framework whereby citizens may not only exercise public scrutiny of governments, but also find imaginative ways of loosening ossified positions.

Because of the great variety of conditions in the different countries , there has been a tendency to stress the dissimilarities. However, these must be fully grasped and respected if a common approach and European solidarity are to be achieved...

A democratic and sovereign Europe is inconceivable so long as individual citizens, groups of citizens, or nations are denied the right to

take part in decisions affecting not only their everyday lives, but also their very survival.

Within a framework of cooperation and dialogue among all those who genuinely seek to overcome the present dangerous situation, it should be possible to come forward with different disarmament initiatives and proposals, the creation of nuclear free and neutral zones , the encouragement of relations between individuals, groups and states as well as the renunciation of the use of force or nuclear weapons, and finally, regional treaties of all kinds, including for example , rapprochement between the EEC<sup>44</sup> and the CMEA. (..) In our pursuit of these aims we can no longer avoid those issues which have so far been taboo, one of which is the division of Germany. If our aim is European unification, then no one can be denied the right to self determination, and this applies equally to the Germans. Another taboo has been the withdrawal of foreign troops. Let us therefore propose that the NATO and the Warsaw Pact enter forthwith in negotiations on the dissolution of the military organizations. (...) We believe that our views will meet with your understanding, and we wish you every success in your proceedings.

Signed: Jarmila Belicova (plus 48 other names (ed))

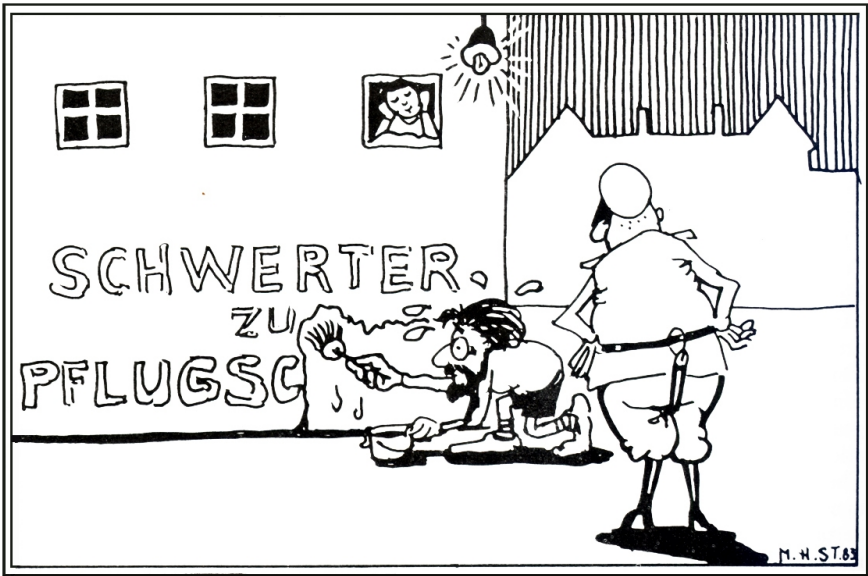
Prague 11 March 1985

### **Comprehension:**

1. How do the Charter 77 people look upon Europe's role and the significance of the Helsinki agreement?
2. What changes must be brought about before the final goal of a unified Europe can be achieved?
3. Discuss the background and the prospects of the proposals within the Eastern bloc.
4. What is the main distinction between the peace movements in the East and the West?

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<sup>44</sup> Now EU.



*FRIEDENSARBEIT*

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*I like to believe that people in the long run are going to do more to promote peace than are governments. I think that people want peace so much that one of these days governments had better get out of their way and let them have it.*

*— President Dwight Eisenhower, 1959*

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*Young people in East Germany wearing this cloth badge on their shirts were intimidated to remove it. The threatened consequences ranged from expulsion from school and universities, to refusal of apprenticeships.*

## "EVERY TIME MRS THATCHER RANTS"

Neither the cause of peace nor that of liberty can be postponed to wait upon the other: it is natural that they should go forward together. A genuine thaw in the East will make the cause of peace in the West unstoppable. Renewed repression in the East will feed the roots of the cold war. And what is, most of all, inducing this repression in the Soviet block? The near hysteria, the anti-soviet ideological rancour of our own Western cold warriors - and behind them, the NATO planners who dream of a first disarming nuclear strike. These are the people who are fuelling Soviet paranoia and bringing comfort to the Soviet hawks.

Every time Mrs Thatcher rants at the Soviet Union a prison door closes in Prague or in Moscow."

E.P.Thompson, in The Guardian' Febr. 1982.

## DETENTE FROM BELOW

### - Practical Examples

Most of the peace work started as a protest - No to the Neutron Bomb, No to Cruise Missiles and SS20s - and has had broad success as such: Weapons, however, are only symptoms of more deeply seated conflicts (resources, economic interests, spheres of influence, ideologies), so the peace process has unceasingly had to address these problems. One important aspect is the attempt to overcome enemy images, prejudices and mistrust, to bring about détente from below. In addition to the well-established work of UNESCO and several NGOs the new peace movements

have launched a series of confidence-building initiatives, like the Ground Zero Pairing Project in the USA and the GDR/FRG initiative "Disarmament from the Bottom, Personal Peace Treaties"

## **The Ground Zero Pairing Project links U.S./ Soviet Cities.** Portland, Ore. (AP)

About 800 cities and towns across the United States have mailed "community portraits" to selected cities in the Soviet Union, hoping to help thaw frosty relations between the two superpowers.

The Portland-based Ground Zero Pairing Project is coordinating the effort, aimed at lessening the chances of a nuclear war. "Make the first strike a knock on the door" is its slogan "Packages were mailed this week to Soviet communities selected for geography, population and economic characteristics similar to the cities sending the 'portraits'", said [Earl Molander](#)<sup>45</sup>, executive director of the project. "Each city's portrait contains items intended to show the Soviets what the American

community is like", Molander said. They include demographic data, photos and books describing the city, and messages from residents, including children. "I'm sure many people are thinking, 'My, what a naive exercise,'" said Freda Tarbell, a member of the Ground Zero chapter in Erie Pa , which sent information and photographs to Poltava in the Ukrain. Poltava is the site of Peter the Great's 1709 victory over Charles XII of Sweden, a battle that established Russia as a European power. "But", she added, "we don't think this is an exercise in nai-vite at all. We feel the governments have not been effective in handling the nuclear issue at all, so perhaps we can approach it on another plane."

"We believe that if we can establish extensive community-to-community communications and exchange, we will have made a major contribution to reducing the polarization between the United States and the Soviet Union that seems to be the trend these days",

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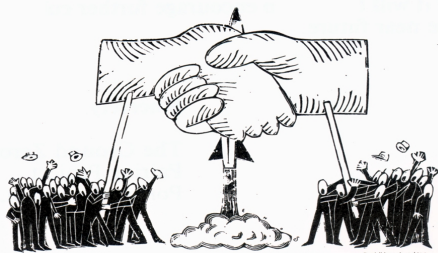
45 Dr. Molander is Professor Emeritus of Business Administration at Portland State University. He is author of *What About the Russians - and Nuclear War* (New York: Simon & Schuster, Pocketbooks, 1983). He has served as president of the Portland-Khabarovsk Sister City Association.

Molander said. He says he has contacted a Soviet official in Washington whom he described as "supportive" of the idea. But organizers remain unsure how the packages will be received by the mayors and councils of the Soviet cities. Molander said he was told it will be up to each Soviet city to decide if and how it will respond to the Americans' request for similar information in reply. "The hope is that the "first strike" will lead to more sister-city relationships", Molander said. "The second strike will be real people trying to establish person-to-person contact", he added.

The Ground Zero Pairing Project grew out of a Ground Zero Week

in April 1982, when seminars were held across the country on the effects of a nuclear attack. Ground Zero's headquarters is in Washington where it disseminates information on the effects of nuclear war." Organizers say that a little more than 1.100 American cities and towns have agreed to participate in the pairing project, of which about 800 sent their "portraits" this week. The rest will be mailed during the next few months. "Most of the cities have between 25000 and 100.000 residents", Molander said. Larger ones include New Orleans, Denver, and Portland - which has sent its package to [Khabarovsk](#) in the Soviet far east.

The above article appeared in over 1000 newspapers throughout the United States in Nov. 1983. TV-stations and several large newspapers, a.o. *The Wall Street Journal* and *the New York Times*, brought interviews and articles about the town linkage project. This promising activity is being practised in other countries as well, between towns, schools, institutions, professional groups, and individuals (cp. [END Appeal](#).)





The Ground Zero  
Pairing Project  
PO Box 19049  
Portland, Oregon 97219

City of Portland,  
Oregon office of Public...  
Nov 23 1983

Association for Relations  
Soviet and Foreign Cities,  
House of Friendship with  
Peoples of Foreign Countries  
14, Kalinin Prospect  
Moscow, USSR. 103009

Dear Friends,

We write to you with good will and a wish to establish friendly relations between our two nations. The Ground Zero Pairing Project has organized and mailed a Community Portrait of Portland Oregon, USA to the Soviet City, Khabarovsk, with which it has been paired. Khabarovsk was paired with Portland by its similarity in size, physical setting, and economic base.

The Community Portrait contains:

- Pamphlets describing Portland
- Books about Portland
- Letters from citizens expressing the wish to form cordial relations
- Drawings and letters by children

We hope that the Community Portrait of Portland will be received openly and that it will be used to encourage further cultural and friendly exchanges in the near future.

Sincerely,

The Ground Zero  
Pairing Project  
Portland, Oregon, U.S.A.

Dear Portlanders!

With interest we familiarized ourselves with the contents of your letters, and pictures and other materials about Portland and its citizens. We are happy to share your hopes for friendly contacts by means of correspondence between our cities.

We live in countries that are different in their histories, national traditions, sizes, social and political systems. However, thanks to your letters we learned we are united in our wishes not to allow a nuclear disaster and to eliminate the threat of a new devastating war.

The Soviet people, who 40 years ago in the war with Facist Germany lost 20 million of their relatives and friends, are particularly opposed to the arms race and even the very word "WAR."

Our government on many occasions and at various levels initiated proposals about no first use of nuclear weapons, and about freezing nuclear arsenals, but these initiatives of peace so far have not received understanding and support of the NATO countries and primarily of the U.S. administration. Emplacement of American medium range missiles in some W. European countries makes our relationship with the U.S.A. more difficult and all this therefore represents a real threat to the U.S.S.R. and other socialist countries.

We think with mutual efforts of peoples of the world, including Soviet and American people, we can say an emphatic "no" to war, and in this respect we join you fully in your sincere sentiments about uniting the voices of protest to struggle for peace and relaxation of international tension which appear in your letters.

From this package you can learn something about our city of Khabarovsk which last year celebrated its 125th anniversary and about how Soviet people work, study and live.

We hope that correspondence between our two cities will be continued.

Respectfully,

Members of the Executive Cotrmittee  
of the City Council of Peoples Deputies

V.A. Karev

Y.M. Treshenko

## ÅRHUS NUCLEAR-FREE

As a token of goodwill and as a signal both to their government and to the peoples and leaders of the Eastern power bloc, several town communities in Western countries have declared themselves nuclear-weapon-free zones. The approach, the contents and the legal status of the declaration may differ, but they all voice the concern of ordinary citizens and their representatives, and - like the linkage projects - form part of the process of détente from below. A two-third majority of the town councillors, including the Mayor of Aarhus, Denmark, signed the following declaration in October 1985, the draft of which had been submitted by the local branch of NtA (No to Nuclear Weapons).

### **Aarhus Nuclear-Free Zone**

Aarhus shall be nuclear-free. As popularly elected city councillors we carry a special responsibility for the security of our citizens, also in future. A strong reason to want Aarhus to be nuclear-free. We know that this alone will not put an end to rearmament. But we are also aware of the fact that Aarhus will not escape the nuclear missiles if Denmark should be hit by a nuclear attack one day.

First of all we regard the decision to establish a denuclearized zone as a symbolic act and a confidence-inspiring step. We find it of great importance that a municipality, especially the second largest, publicly gives support to the demand for disarmament.

We can contribute to this by virtue of our position. But at the same time we call on the representatives of the people in government and parliament to pursue the object that Denmark, together with the other Northern countries, is declared denuclearized zone.

With our decision not to allow nuclear weapons, we show our surroundings that no aggression will come from our side. And naturally, we do not want to be attacked either. This is a more promising political signal than the deployment of more nuclear weapons.

Illustration missing

Sabra Field and Kate Pond

American Friends Service Committee, Putney Vermont 05346

Poster by Vermont artist Sabra Field used in Vermont Freeze campaign.

1. Give some historical examples of peace efforts from below.
2. What made the broadly based popular peace movement come about in recent years?
3. What is the record of the peace movement over the past 6 years? Dis-cuss the achievements and failures, and find reasons for varying results.

Suggestions for further individual/group/class work:  
Discuss the validity of the idea of "Detente from below" in general and, more specifically, by looking closely at the examples given in pp.154

## **WE CAN DO IT**

One of the remarkable characteristics of the American people throughout history is our "can do" attitude - our sense that we control our personal and national destiny. This distinctive American attitude - a combination of philosophical optimism, day-to-day pragmatism, and historical experience - has been with us from the earliest settlements at Plymouth and Jamestown through the revolutionary and civil wars, the building of the urban metropolis, the settlement of the West, a disastrous depression, two world wars, and the conquest of space. These challenges were not easy for individual Americans or for the nation as a whole. But we prevailed in all of them.

Preventing nuclear war is a tremendous challenge which involves not only the integration of the intentions and capabilities of our own nation with those of our enemies and allies, but also an integration of the threat of nuclear war with our everyday life. Yet there is nothing in the parts of the problem which suggests that the problem is insoluble. In particular, there is nothing to justify a fatalistic view that The

Bombs will come regardless of the actions of ourselves or anyone else. We met those earlier challenges by integrating the individual efforts of hundreds, thousands, and eventually millions of people, acting as heads of governments and heads of households, working in trenches, kitchens, fields, and factories - thinking, leading, building, voting. In this same way we must meet the challenge presented by the threat of nuclear war.

The American philosopher [Ralph Waldo Emerson](#) once [wrote](#)<sup>46</sup>, "It was a thought that built this whole portentous war establishment, and a thought shall melt it away." He was writing in the last century, but his words are even more to the point today. The danger we face is of our own making. Nuclear weapons don't have to be like the weather - some-thing everybody talks about but nobody does anything about. We - Americans and Russians alike - got ourselves into this situation, and we can get ourselves out.

### **So What Can I Do ?**

So what can I do? We have heard this question again and again in the months since the inception of Ground Zero. Here is what we have told people all over the country:- Be confident. You can understand the issues and arguments surrounding the subject of nuclear war. The information you need is available, not all hidden under a "top secret" stamp.

- Try your wings. Tell your family, friends, and co-workers how you feel about nuclear war. Be candid about your fears and hopes. Explain what you think we can do about it. As the Bible recommends, don't hide your light under a bushel.- Speak out. Don't keep your thoughts to yourself. The letters to the editor section of your local newspaper is an excellent forum for you to speak out on any issue which affects you or your community. Write to your elected representatives in Washington. Don't forget that they work for you. Tell them that you are worried about the number of nuclear weapons in the world, that you hope they'll try to do something about it.

- Think big. There is no limit to what people can do when they work together. You aren't the only one in your community worried about

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46 Delivered in March, 1838 in Boston, MA.

nuclear war. Look for the others in your local church or community groups. If you can't find anyone already working on the problem, start a group of your own.

- Don't give up. It has taken us nearly forty years to get into the present mess. We won't be out of it overnight. The world takes time to come around.

- Don't wait for the answer. No one has the solution to the problem of nuclear weapons. You don't have to figure out every last detail before you write the letter to the editor. It's your expression of concern that will touch other people. Remember that the world's leaders don't know what to do either. If they did, we would not find ourselves in this situation.

## A New Road

Early in this century<sup>47</sup>, the American poet [Robert Frost](#) wrote a poem entitled "[The Road not Taken](#)," which closes with these words:

*Two roads diverged in a wood, and I -  
I took the one less travelled by,  
And that has made all the difference.*

We, the American people, today find ourselves travelling at an accelerating speed on a road that is growing increasingly obscure and dangerous. This is the road we have chosen - to make ourselves safe with more and more nuclear weapons, to caution potential enemies through intimidation and fear. We aren't the only ones on the road. The Soviet Union is on it, too. So are our allies and their allies - and like it or not, so are the rest of the nations of the world.

But the road we're on is no longer taking us where we want to go. We do not feel safer. Indeed, we have never been more threatened than we are now. It is inevitable that we should ask ourselves, our friends, and our enemies alike: *Is there no safer road?*

(From: Nuclear War, What is in it for You? ed. Ground Zero)

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47 1916.

## Revolutions per Minute

### Is the Peace Issue out of Fashion, Like Long Hair?

The idea that by combining music and politics you involve a wider number of people in the political process, reach an audience who don't watch the news or read the papers, and generally ensure that the political problems touched upon by the music will be taken seriously, is nonsense. There's no safer way to castrate a political view, to render it more harmless than to express it to the accompaniment of a throbbing back beat; the horrors of nuclear war are made less, rather than more, tangible by expressing them in a form you can dance, sing, or fuck to. When '[The War Game](#)' was banned, when E.P. Thompson was prevented from giving the Dingleby Lecture, when Bertrand Russell was jailed for participating in non-violent protest, the nuclear issue still had some force: in a year when Nena, Paul McCartney and [Frankie Goes to Hollywood](#) all got to the top, riding on the nuclear wave, bombs are big bland bucks.(..)

Stance bands place important ideas at the mercy of the vast and ruthless forces of fashion: it is all very well popularizing a political view by coupling it with a mega mix and proclaiming it in nice bold letters on a T-shirt - but what is fashionable will sooner or later become unfashionable; (...) it is to reduce the decision about which way to vote to the same level as the decision over how long you should wear your hair.

*From Julie Burchill: Love it or Shove it  
Century Publishing, London.*

**Comprehension:**

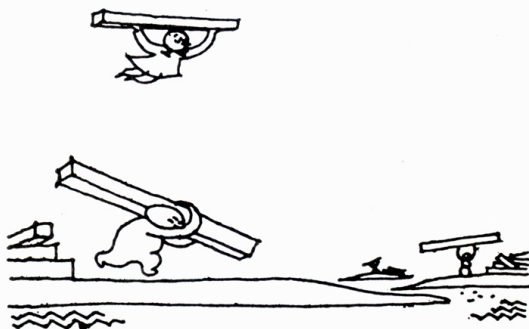
1. Read the texts and listen to the music of some of the musicians mentioned here, and discuss the effect of their products, taking into account also the situations under which they are normally being received.
2. Have the beat 'protest' groups that have taken up great issues like peace, anti-imperialism, human rights, unemployment, racism really done more to undermine the causes they propagated than helping them on ?
3. Suggest alternative ways in which important issues like the ones mentioned, could be made popular so that politicians have to take the "will of the people" into account when deciding on these matters .

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49 The records referred to are [probably](#): F.G.T.H.: Welcome to the Pleasure Dome (ZTT/ Island 302419), McCartney: Tug of War, Pipes of Peace (Odeon 1C064-64 750T and 1C064-64 1652301), Nena: 99 Luftballons.

50 After [August 6, 1961](#).





## BRIDGING MATERIALS

Is there a mote in your neighbour's eye?  
Bridge-builder, leave it alone!  
Humanity's bridges can only be built  
of the beams in your own.

Piet Hein

Copyright (c) Piet Hein Grooks I- VII, Borgen 1966-84

# PEACE STUDIES AS A PREPARATION FOR LIFE

From The Daily Telegraph 26/7 1982

Sir-

In the light of governmental support for the United Nations declaration on peace and disarmament education (...). I read with disappointment your report (on July 16) of the decision of local authorities against the introduction of peace studies into school curricula. What dismays me in particular is the implication that education for peace has become a political football, to be debated along party lines. There may be political figures who prefer an ill-educated and ill-informed population, or who maintain that the teaching of humane values in schools represents bias. But the attack on the introduction of peace studies into schools as "indoctrination", implies that crucial problems and painful dilemmas should be left unexamined. This is an "indoctrination" which prevents classes of sixth-formers from considering the potential threat of nuclear war, or fourth-formers from analyzing conflict and prejudice in the classroom or the community. One of the assumptions of peace educators has been

that key species problems cannot and should not be eliminated from the school dialogue, least of all that of human survival. But how and when those problems are introduced is a matter for the individual school and teacher. Far from being a CND or Labour Left plot, the peace education movement at higher and secondary levels has long stressed the need to create critical debate and informed awareness rather than orthodoxy, whether on deterrence or the cold war. There is no peace-studies party line on unilateralism or teaching methods. As a concerned parent myself, I do not want peace education to involve diatribes from ideologues (Marxists or monetarists) but I do want my teenage child to be informed and prepared for the world she has to face. An educational environment which can rationally address her nightmares or offer alternatives, is by its nature plural and humane. In any case, the record of peace education shows clearly that it is not just about disarmament and the East-West conflict. It is not just concerned with World War III, but with

social justice and non-violence as well as human rights.

Educating for peace is in essence a critical process -opening, not closing minds and dialogues; it is in orientation globalist and mult-

icultural, not narrowly chauvinist. That is its professional bias.

[Nigel Young](#)

Reader in Peace Studies,  
[University of Bradford](#)

*Dr Nigel Young is currently professor of Peace Studies, Colgate University, New York.*

1. Why have local authorities decided against the introduction of peace studies into schools?
2. What is the consequence of this for sixth and fourth formers?
3. Discuss your attitudes to peace education in schools.

## Peace studies

*From the Headmaster of the [United World College of the Atlantic](#)*

Sir,

I wish people would stop using peace studies as a political football, and talking as if they, and they alone, were for peace. Now Miss Hilary Lipkin (February 6) writes of "Teachers for Peace, a group within CND".

So what is everyone else supposed to be - "Teachers for War"? Nor does the Campaign for Nuclear Disarmament have a monopoly of concern for nuclear disarmament. Label snatching is not argument. And the right do an equal disservice to the cause of peace

when they condemn peace studies out of hand. At Atlantic College we have a peace studies course which is attracting attention in this controversy. By studying seriously the complex and terrifying problems of peace and war, we aim to develop our own understanding, and in a small way the understanding between the 60 countries from which our students come. Our views are as diverse as our backgrounds. I personally, with many others, am a multilateralist. Others are unilateralist (though our international students often find the British obsession with the British bomb a bit parochial). We can reach no understanding if we do not study together.

As [Lester Pearson](#), one of the founding fathers of the United World Colleges movement, said in his Nobel Peace prize lecture in 1957, "How can there be peace without people understanding each other, and how can this be if they don't know each other?". In 1984, of all years, we should surely remember the power of twisted slogans, and defend from

the manipulators the important words like Peace.

Yours faithfully,

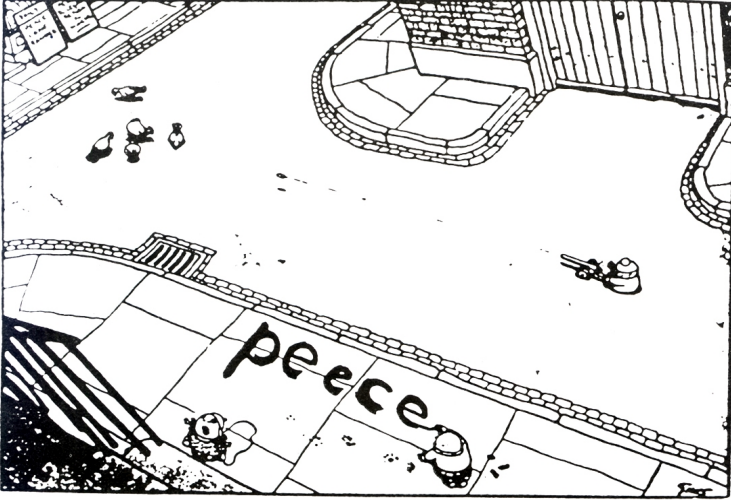
A. C. STUART, Headmaster,  
United World College of the Atlantic,  
St Donates Castle,  
Llantwit Major,  
South Glamorgan.

## Imagine

### [John Lennon](#)

Imagine there's no heaven  
it's easy if you try  
No hell below us  
Above us only sky  
Imagine all the people  
Living for today...  
Imagine there's no countries  
It isn't hard to do  
Nothing to kill or die for  
And no religion too  
imagine all the people  
Living life in peace...  
Imagine no possessions  
I wonder if you can  
No need for greed or hunger  
A brotherhood of man  
Imagine all the people  
Sharing all the world...

You may say I'm a dreamer  
But I'm not the only one  
I hope someday you'll join us  
And the world will be as one



*'Mum! Cyril's wrote a wicked word.*

([Giles](#)'s comment on the Cold War hysteria, 1950<sup>51</sup>)

## POSTSCRIPT

### What is so Sacred about the Bomb?

While most teachers of English see no problem in fitting in topics like atrocities in Northern Ireland, or racial conflicts and violence in South Africa and the USA, there is a striking reluctance to dealing with such issues - of greater concern - as the threat of nuclear war, the arms race, or the peace

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51 Daily Express November 14th., 1950.

movements. It is as if the "bomb" is more sacred than the forces who try to get rid of it. But the Sword of Damocles is hanging above us all on this earth: the threat of a nuclear holocaust set off by computer errors or madmen.

Has that already become too commonplace?

Or can political issues in a world perspective only be dealt with if they are comfortably far off in time and distance?

To us, that view is not acceptable, and one lesson of the (last?) pre-war period is that teachers must learn to handle the "hot potatoes" - also in educational contexts - with the same balanced, comprehensive approach as is normally applied.

For there are threats - nuclear holocaust, global pollution, population explosion and famine - we must help identify them, and brace ourselves and the young generation to meet them.

Anthony Sampson, who was an initial inspiration to the compilation of this anthology, says in the final paragraph of his book, *The Arms Bazaar*:

"The involvement of governments have encouraged arms salesmen to delegate any misgivings; but the governments deliberately conceal the full extent and implications of the trade, for fear of arousing public opinion and 'left-wing extremists'. Yet, informed public opinion in spite of the old spell of weapons, can often be wiser and more moral than governments operating in secrecy."

Is Anthony Sampson - or are we - "left-wing extremists" when we try to unveil what governments (and the media) distort and conceal?

We like to consider this anthology as a contribution to forming the "informed public opinion" in our schools among colleagues and students. The neo-conservative trend of egocentrism, machismo and non-solidarity, or the wish not to be bothered with huge global problems, but to be allowed to pursue one's own particular professional specialization, however, are obstacles well worth trying to replace by a [positive](#) attitude to issues concerning mankind as a whole. How do we set about our task?

Obviously by providing suitable texts and informing about resources available elsewhere. Still, there are doubts and criticism to be dispelled as to subject matter and source material. So we suggest applying the well-established analytical approach:

Who is presenting this piece of evidence?

Who is s/he trying to convince?

What attitude may we expect the author to have, considering his / her background and position?

What is the message? What are the arguments like?

Is any relevant information being suppressed?

The same approach will help keeping the atmosphere clear, if applied to the teacher: Where does s/he stand in these matters?

As for the editors: We tend to agree with "the other America", and the broad goals of the European Peace Movements. In a longer perspective we would like to see the dissolution of the military blocs in Europe. We find the Scandinavian version of democracy better than the political systems of either the USA or the USSR. We think the most immediate threat to our democracy is the self-perpetuating paranoia of the "arms racers" and the gradual acceptance of a sick nuclear culture, which is subtly seeping into our unconscious from the media, locally and globally. For example, we accidentally discovered that at one of our own schools, students learned to use computers with a programme entitled : "Bombs over Moscow".

We do not believe in the security of MAD, but try to participate in a long-term peace process, working for a détente from below as exemplified in the last sections of this book.

## **Suggestions**

The scope and structure of this book, we hope, will invite reading and discussions of essential passages from each of the sections - but we have no illusions of any class using all texts. We have

tried to make it easier for teachers and students to make their own choices by adding short synopses in the Table of Contents to all texts of some length - and the introductions contain further preliminary information on what each section has to offer. As for "approaches", we offer a few suggestions:

### **"Openers":**

The two introductory texts in the section: [Global Views](#) are meant as eye-openers, confronting the reader with two key aspects:

- 1) The "blindness" that the immensity of the nuclear phenomenon and the staggering stockpiles of explosive power tend to cause. (A closer study of the charts is essential in this connection.)
- 2) The sick priorities that the governments of the world have been driven - or drive each other - to adopt in their competitive foreign policy.

Most of the texts in the section entitled Magic Spells and Demons, should perform the function of "openers", stimulating discussion and further reading in other sections. Most of them have suggestions for such follow-ups.

### **Videos.**

A springboard for starting up a class discussion might be a video presentation. Helen Caldicott's "If You Love this Planet", which is an illustrated and passionately engaged lecture to an auditorium of Canadian students, might raise the questions how and why the world has got into the predicament described here. - Answers and comments to this will be found in all sections of the anthology, but groups might also work out their own questions, or seek support in the anthology.



Another provocative video approach might be *The Atomic Cafe*, which traces the ignorance, innocence and trivialization surrounding the nuclear phenomena from the first announcement by President Truman. - Several of the texts of the anthology elucidate and discuss related problems. [The Right Stuff](#) (available from video shops) which is the film version of Tom Wolfe's novel, highlights the machism of test pilots and astronauts, (cp. *Lost in Space*, *Perfectionists and Professors*, *The Thinker's War Game* etc.) [Dr. Strangelove](#) might be relevant to *The Star Warriors* - to mention just one text.

## Simulations, Linkages etc.

Panel discussions, simulated interviews, press conferences or even "hearings" could be organized by confronting texts like What is so wrong with the MIC? and A Militarized Society, or The Dynamics of the Arms Race, the general idea being that, after reading and "comprehending" the kernel texts, the interviewers / reporters study the "counter-information" texts and work out their questions. Less ambitious variations of the daily routine could be using some of the texts to train reading strategies, like techniques for guessing the meaning of "new" words, or using some of the texts as the basis of "library work", where students carry out their own research in manuals, encyclopedia and dictionaries. (Here the SIPRI yearbook will be useful, if not indispensable). Besides calling attention to the book- and [film](#) lists, we suggest that class work might be supplemented and stimulated by asking students to be more attentive news-readers and tv-watchers in order to report relevant information, or to compile press-cutting books and notice boards.

Also embassies, peace movements and NGO's might supply leaflets, posters, films or guest speakers, all of which might become items in a discussion or topical arrangement for part of or the whole school. And what about exchanging letters, sound or video recordings with some school or peace group in a foreign country (cp. the Ground Zero Linkage arrangements p.154)

We hope to follow up the publication of this book with a Teacher's File, containing more detailed descriptions of "projects" plus additional topical material for free copying.

In addition, we have plans for a computer simulation related to the material of the book.

We should welcome suggestions for these materials - and constructive criticism of the present book.

Finally we thank our colleagues Susanne Carsten Pedersen, who

was one of the original initiators of the project, Annette Larsen who was an enthusiastic practical supporter, Peter Abildgard Nielsen, who worked out many of the questions, Henrik Monved for much good advice and encouragement, and finally Tommy Borch, who was our patient computer expert and a very co-operative representative of our no less patient publishers.

## THE WEIGHT OF NOTHING<sup>52</sup>

"Tell me the weight of a snowflake", a coal-tit asked a wild dove.

"Nothing more than nothing", was the answer.

"In that case I must tell you a marvellous story", the coal-tit said.

"I sat on the branch of a fir, close to its trunk, when it began to snow, not heavily, not in a raging blizzard, no, just like in a dream, without any violence.

Since I did not have anything better to do, I counted the snowflakes settling on the twigs and needles of my branch. Their number was exactly 3.741.952.

When the next snowflake dropped onto the branch - nothing more than nothing, as you say - the branch broke off."

The dove, since Noah's time an authority on the matter, thought about the story for a while, and finally said to herself: "Perhaps there is only one person's voice lacking for peace to come about in the world."

## BOOKLIST

This book list comprises 3 categories: 1: Catalogues and general texts, [2: War and armament](#), 3: Peace and disarmament - both fact and fiction. In each category the books are listed alphabetically, mostly by author. Some books/periodicals belonging under more than one group, are listed once only, in the predominant category.

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<sup>52</sup> Pax Christi: From A Race to Nowhere: An Arms Race Primer for Catholics, 1980.

For Scandinavian readers there is a special list of Danish titles - in the separate glossary booklet.

### **General:**

Ackland, Len & Mcguire, Steve: *Assessing the Nuclear Age* - an anthology. University of Chicago Press 1986, \$25

Crispin Aubrey: *Nukespeak, The Media and the Bomb*, (Comedia 1982 9, Poland Street, London W1V 3DG)

Brians, Paul: *Nuclear Holocausts, Atomic War in Fiction 1914 -1984*, (a bibliography) (Washington State University.)

Bulletin of the Atomic Scientists (Chicago)

*Decision Making in a Nuclear Age* (Halcyon House, Weston, Mass. USA)

Dougall, Luzy: *War and Peace in Literature*, (World Without War Publ., S. Wabash, Chicago, 1982)

Higgins, Ronald: *The Seventh Enemy*, (Pan Books, London 1980)

[Houseman's Peace Diary](#), (5, Caledonian Rd. London N.90; lists addresses of peace organizations)

*Nuclear Issues*, ed. by Haydon & Mulligan, (Thames TV, London 1982)

Russell, Bertrand: *Has Man a Future?* (Penguin 1970)

Schell, Jonathan: *The Fate of the Earth* (Knopf N.Y. 1982)

[The UNESCO Courier](#) (31 languages) Monthly, UNESCO, Paris. (Special issues on e.g. Disarmament, Development, International Understanding, War and Peace.)

The UNESCO Youth Division: *A Plea for Peace* (UNESCO 1986)

Vonnegut, Kurt: *Galapagos* (Delacorte, 1985)

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World Concerns and the United Nations (Model Teaching Units for Primary, Secondary and Teacher Education. 240 p). (UN, N.Y. 1983)

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## FILM LIST

As it is not possible to bring a comprehensive list, we give a few hints on annotated catalogues and sources, along with some titles we can recommend. Peace movements in most countries can provide information, e.g. Freeze the Arms Race (USA), CND (UK), I.K.V. (Holland), NtA (Denmark), also various embassies.

Films for Peace (200 films); Concord Films Council, Ipswich, Suffolk, U.K. Dowling, John: War/Peace Film Guide (287 films); World without Wars Council,

Madison, Chicago. United Nations Information Offices (Annotated film catalogue; i.a. Boom (11 min), Nuclear Countdown (28 min), In the Minds of Men (30 min), The Big IF (9 min).

Hiroshima/ Nagasaki: August 1945 (Museum of Modern Art, New York)

Survival ... or Suicide (polit./ histor. aspects of the arms race; American Committee on East-West Accord,

Washington DC) \$ 1,000,000,000,000 for Defence (Why and What, illustrations and discussions;

Survival Film, Evanston, II. USA) Nuclear Nightmares (4 scenarios for nuclear holocaust, Peter Ustinov, BBC 1980, 90 min.)

If You Love This Planet (Helen Caldicott; Canadian Film Board, video 25 min.) [The Atomic Cafe](#), Threads, Nuclear Winter, The Seventh Enemy, Slaughterhouse 5, Dr Strangelove, [The War Game](#), Pika Don, [The Day After](#), The Right Stuff (some of several film/video titles available from various sources)

# GLOSSARY OF TECHNICAL TERMS, ACRONYMS AND ABBREVIATIONS

(Short vocabulary for a Nuclear Age)

Letters in brackets, after words, e.g. (T), refer to entries under that letter in the list,

**ABC:** Atomic, biological and chemical weapons.

**ABM:** Anti-Ballistic Missile system which shoots nuclear warheads at oncoming missiles to prevent them landing on target.

**Airland Battle:** New NATO military doctrine in Europe.

**ALBM:** Air Launched Ballistic Missile.

**Arms Control:** Any measure limiting or reducing forces, regulating armaments and/or restricting the deployment of troops/weapons.

**Arms Limitation:** An agreement to restrict quantitative holdings of or qualitative improvements in specific armaments or weapons systems.

**Arms Race:** The competitive or cumulative improvement of weapons stocks (qualitatively and quantitatively) or the build-up of armed forces based on the conviction by two or more states that only by trying to stay ahead in military power can they avoid falling behind.

**AWACS:** Airborne Warning and Control System.

**B1 (B-1B):** New American supersonic strategic bomber with a 34,000 kg payload capable of flying intercontinental missions without refuelling. (B-1B1): combat load 50.000 kg, up to 30 cruise missiles.

**Battlefield nuclear weapons,** see: [Theatre](#) etc.

**Ballistic Missile:** A missile that travels on "free fall" trajectory after its initial launch.

**CD:** Committee on Disarmament set up 1978 by the UN General Assembly, 40 member states.

**CEP:** Circular Error Probability: A measure of the accuracy of a missile: the radius of the circle around a target within which half of the missiles aimed at the target can be expected to land.

**C<sup>31</sup>:** [Command, Control, Communications and Intelligence](#) (US).

**CIA:** Central Intelligence Agency, joint management of US security - and intelligence services since 1947.

**CMEA:** Eastern equivalent to EEC, Council for Mutual Economic Assistance.

**Cold War:** Period of East-West



tension from roughly 1947-62 characterized by arms race and balance of terror (NATO -WP).

**Congress:** The US legislative body, consisting of the House of Representatives and the Senate.

**Conventional** (forces, war, weapons): Military organization, hostilities, and hardware excluding ABC capabilities (A).

**Counterforce-strike:** A preemptive (P) nuclear attack against military forces (not cities or industries) to prevent a nuclear attack by the other side.

**CPSU:** Communist Party of the Soviet Union.

**Cruise missile:** Small, highly-maneuvrable, low-flying, pilotless aircraft (equipped with accurate guidance systems which periodically readjust the trajectory).

**CSCCE:** Conference on Security and Cooperation in Europe (Helsinki 1975, Beograd 1977, Madrid 1980-83. (Human Rights, acceptance of existing frontiers, reducing tension, improved contacts).

**Deliverable Warhead:** (nuclear delivery system): A nuclear weapon, together with its means of propulsion and associated installations (air-craft, ship, etc).

**DOD:** Department of Defence (US ministry, Pentagon). **Deterrence:** The prevention from action by fear of the consequences. Credible

threat of "unacceptable damage" or assured destruction (MAD) through nuclear retaliation after a first strike (F), (M).

**EEC:** European Economic Community.

**ERW:** Enhanced-Radiation Weapon, such as the neutron warhead with high and rapid radiation effect, killing people, leaving buildings intact.

**END:** European Nuclear Disarmament Campaign, c/o Bertrand Russell Peace Foundation, Nottingham.

**First Strike Capability:** The ability to launch an attack on enemy without suffering "unacceptable damage" in retaliation. If one country has F.S.C., the other has lost its "deterrence" (D), and that situation is highly destabilizing.

**FAO:** Food and Agricultural Organization (U.N. 1945).

**Freezing:** Proposal for complete halt of all development, testing, deployment etc. of nuclear weapons by both superpowers.

**Ground Zero:** The point on the ground just under the exploding nuclear bomb, the target.

**H-bomb:** Hydrogen bomb (1951).

**ICBM:** Intercontinental Ballistic Missile, a landbased missile capable of delivering warheads to ranges over 5500 km (MX and SS18).

**IDA:** International Development Agency (U.N. 1960).

**ILO:** International Labour Organization (U.N. 1929).

**IRBM:** Intermediate Range Ballistic Missile, ranges less than 5500 km, tactical weapon. (Pershing II, SS20).

**Kiloton:** Measure of yield (Y) of a nuclear weapon equivalent to 1000 tons of TNT (T). The Hiroshima bomb had a yield of about 14 kilotons.

**Laser weapon:** Intense beam of light carrying high energy and having destructive force (Experimental Stage, SDI).

**Lobbying:** Attempts by business corporations, institutions etc. to influence political and financial decisions of e.g. Congress (C) more or less institutionalized in U.S. legislative practice.

**MAD:** Mutual Assured Destruction.

**MARV:** Manoeuvrable Re-entry Vehicles, vehicles like MIRV, but also able to change course during flight.

**MBC:** Military-Bureaucratic Complex.

**Megaton:** The explosive equivalent of one million tons of TNT (T).

**MFBR:** Mutual and Balanced Force Reductions. East-West arms limitation negotiations in Vienna since 1973.

**MIC:** Military-Industrial (-Scientific) Complex.

**Minuteman:** American light ICBM (I), range 13000 km, payload 3 x 165 kilo-tons MIRV, (= 10-12 Hiroshima bombs).

**MIRV:** Multiple Independently Targetable Re-entry Vehicles are "sprayed" from a single missile; each has its own guidance system and is aimed at a predestined target.

**MX** missile: "Missile Experimental", a solid fuel ICBM (I), successor to the Minuteman III. Pres. Reagan has proposed to install 100 MXs in hardened silos.

**NASA:** National Aeronautics and Space Agency.

**Neutron Warhead:** see [ERW](#).

**NATO:** North Atlantic Treaty Organization (1948).

**NGO:** Non-Governmental Organization.

**No-First-Use:** Declaration not to be the first to use nuclear weapons.

**Non Proliferation Treaty (NPT)** of nuclear weapons (1970): prohibits transfer to and manufacture of nuclear explosive devices in other countries than the Nuclear Weapons States.

**NUTS:** Nuclear Utilization Theories, as different from MAD (M) balance of terror.

**Overkill:** The ability to destroy an enemy more than once, (U.S.-

S.U. more than 20 times).

**OXFAM:** Oxford Campaign Against Famine (G.B.).

**Pentagon:** The [pentangle](#) shaped building of the U.S. Ministry of Defence, often = DOD (D).

**Pershing /Ia:** American nuclear missile IRBM (I), deployed in Europe 1984, max. range 1600 km.

**Polaris/Poseidon:** Nuclear submarines with 3/10 MIRV warheads of 50/200 kilo-tons, range 4.600 km.,.

**Pre-emptive strike:** A first-strike to prevent enemy from striking back, see Counterforce and First strike (C,F.(U,h).

**Reaganism:** The economic policy pursued by the Reagan Administration; cp. Caldicott p. .

**SALT I/II:** Strategic Arms Limitation Talks. Si-treaty: agreement not to deploy ABMs (A), SII-treaty: limits specific types of ICBMs and SLBMs (SX U.S. Congress halted ratification after Soviet invasion of Afghanistan 1979.

**Security Clearance:** Check of personal relations of government employees in order to avoid security risks.

**SIPRI:** Stockholm International Peace Research Institute.

Publishes Yearbook on World Armaments and Disarmament.

**SLBM:** Submarine-Launched

Ballistic Missile, all ranges.

**SS18, SS20, SS21:** Soviet land-based ballistic missiles of long, medium, and short ranges.

**START:** Strategic Arms Reduction Talks , since 1982 in Geneva.

**Star Wars/SDI project:** see [articles](#).

**Stockholm Conference on Confidence and Security-Building Measures and Disarmament in Europe,** opened in Jan. 1984.

**Tactical Nuclear Weapons:** Short-range weapons carried on smaller missiles than ICBMs (I).

**Theatre Nuclear Weapons:** Tactical and medium range weapons, usable in "theatre" (= limited area) war e.g. Europe, The Middle East.

**TNT:** Trinitrotoluene, dynamite.

**Trident missile submarine:** (Ohio Class, U.S.) has up to 16 SLBMs (S) MIRVED (M) with up to 10 warheads (W) each, range 7300 km.

**UN:** The United Nations Organization, founded 1945.

**UNESCO:** United Nations Educational, Scientific and Cultural Organization (1946).

**UNICEF:** United Nations International Children's Emergency Fund (1947).

**UNSSD:** United Nations Special Sessions on Disarmament 1978

and 1982. Important Final Documents. **Vietnam War:** Prolonged colonial war/ liberation war involving the USSR: Union of Socialist Soviet Republics. U.S.A. (and indirectly, the U.S.S.R.) from 1965-1975.

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