



NATIONAL COLLEGE OF ART & DESIGN.
FACULTY OF FINE ART, PAINTING DEPARTMENT.

"WARFARE - To and Beyond the Absolute"

by

ADRIAN, Thomas, Robert, WARD.

**Submitted to the Faculty of History of Art and Design
and Complementary Studies in Candidacy
for the BA of Fine Art, 1996.**

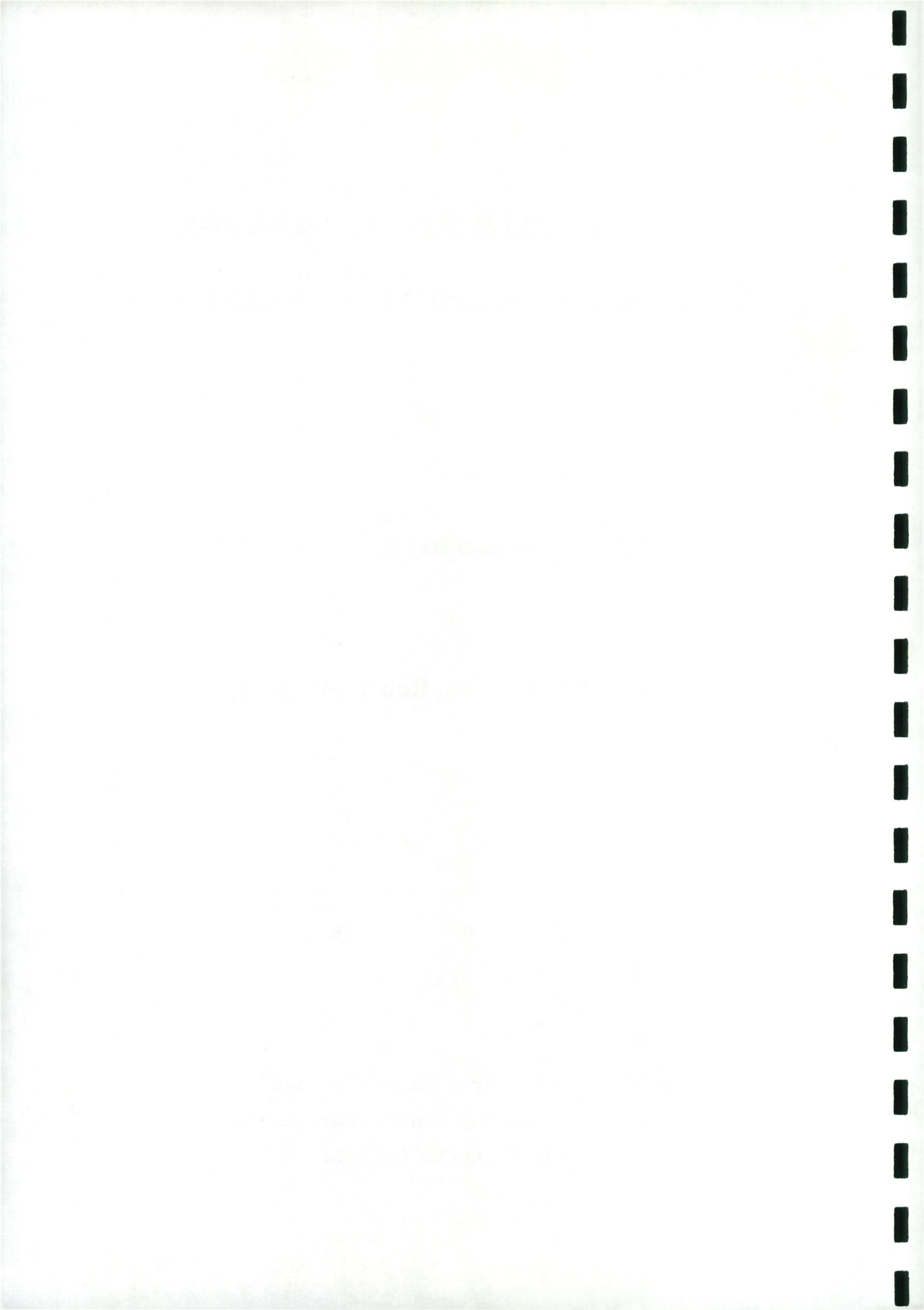


TABLE OF CONTENTS

Acknowledgments		i
Introduction		ii
Chapter 1	<u>"Flesh"</u>	1
	1. The Clash of civilizations.	2
	2. The Master Conflict.	4
	3. The Agriculture Revolution	7
	4. War - a part time job.	9
Chapter 2	<u>"Fire"</u>	11
	1. The Industrial Revolution.	12
	2. The French Revolution.	14
	3. Clausewitz.	17
	4. The First Industrialised War.	21
	5. The War to end all wars.	24
Chapter 3	<u>"Nuke"</u>	29
	1. Death on the Assembly line.	30
	2. Beyond the Absolute.	34
	3. The Road to Madness.	37
	4. The End of the Modern.	41
Chapter 4	<u>"Denial"</u>	42
	1. New Warform.	43
	2. Over Desert Sands.	46
	3. Denial.	48
Conclusion		53
Bibliography		57

ACKNOWLEDGMENTS

I would like to thank, Gerry for help throughout this project. My good friend Vanita for her great help in finding research information. My sister Gillian and my mother for their time, to assist me. Both my parents Denis and Edit for their support over the past four years. Many thanks to all at the Business Depot for their fast and good typing.

INTRODUCTION

This thesis is about war, how it came to its absolute form in the Second World War and the nuclear age. It is also about how warfare is changing in the post-modern¹ world. I hope it will bring some understanding to war and problems for peace in the next century.

The new century is about to start with new hopes that world hunger will end the pollution of the industrial age can be cleaned up, the new clear technology will bring a richer diversity of culture and people coming together. That liberal idea - that no one really want war - and the growing global economic trade, may at last create lasting peace in the post-Cold War era, once the threat of nuclear war between the two super powers, the United States and Russia has ended.

Instead we seem to be going into a new dark age of tribal hate, planetary desolation and wars that multiplied by others wars. Like what had happened in Bosnia in the last three years and in other places where armed conflicts is still going on today.

No one can escape the effects of war in some way, war effect the rise or fall of petrol costs and food costs or shares in the stock exchanges. Wars ravage the ecology, they come into our living rooms by our television sets. Past wars have shaped how we will live today and future wars can use our tax money today. But this seemingly is forgotten in reality.

"For everyone of our lives has been shaped by wars that we have not fought, that we prevented because 'anti-war' was won."

(Toffler 1994, P.3)

What is missing is a new understanding of the relations between war and a fast-changing society.

In the United States, Japan and Europe as they come out of the industrial age, are going

through large changes in all parts of their societies, culture, industry and now military as well. This is coming about because of a revolution in how wealth is made, based on knowledge, rather than raw materials and physical labour in the past.

Once we look back on the past two economic revolutions, which changed the way people worked and lived, the Agriculture (which started in 9000BC, Central Asia) and the Industrial (1700s in Western Europe). We start to see a pattern of how each revolution in wealth making is reflected in the way we make war and its military system.

Once again the world is seeing a revolution in the military which will change how war is fought in the next century, which will bring about new needs in peace methods of controlling war. Already we can see signs of a new military revolution in the Gulf War in 1991/1992.

Chapter One

'FLESH'

**In thy faint slumbers I by thee have watched
And heard thee murmur tales of iron wars.....**

(Shakespeare, Henry IV. part1.)

1.1 THE CLASH OF CIVILISATIONS

It was now clear to many people that the industrial age and its civilisation was coming to an end. In the United States, Europe and Japan changes and upheaval were already evident in industry and society.

Massive changes in society can't occur without conflict and the threat of more wars is likely. History had already seen two different civilisations rising and clashing against each other. Two military revolutions have occurred and there were strong reasons to believe that a Third Revolution had already started as early as the 1980's in the United States.

The First Revolution came about with the invention of agriculture around 9000 BC in the area now called Iraq. There people first learned to work the soil to produce food and so a living and wealth was created from this area, over the centuries farming spread to most parts of the inhabited world. Agriculture brought about new civilisation, which took many different local forms throughout the world. Even to-day people in parts of Africa and Asia live and die in pre-modern agrarian society, working the soil the same way as their ancestors did centuries ago.

The Second Revolution, the industry age, started some three hundred years ago. When Newtonian science first arose, the steam engine was put in economic use and the first factories began to come about in Britain, France and Italy. They appeared later in North America and Germany, Japan, then all Europe and parts of Asia.

Daring new ideas arose of progress, industrial rights, the Rousseauian notion of a social contract, secularism, the separation of Church and State and the new ideas that leaders should be chosen by popular will, not divine right.

Factory production - the new way of making wealth, helped push these changes. As the industry grew, many different elements came together to form a system: mass production,

mass consumption, mass education and mass media all linked together and were served by specialised institutions such as schools, corporations and political parties. Even family structure changed from the larger agrarian style household in which several generations lived together, to the small stripped down nuclear family typical of industrial civilisation.

These changes were merely steps towards full development of what we called 'moderiety' of the mid to late 20th century, - the mass industrial society, the civilisation of the Second Revolution. This new civilisation was resisted at every step in Western Europe and North America by the older agrarian society

With the new Third Revolution which we are now moving towards wealth will be based on how knowledge can be used and sold instead of mass production.

In 1968, AT&T the world's largest private corporation ordered a study to help redefine it's role. In 1972, a decade before AT&T was dismantled by the US government, the firm was urged to restructure and break itself up.

The report - a ground breaking study showed how a giant industrial - style bureaucracy might transform itself into a fast moving organisation. AT&T suppressed the report until it was too late. The notion that radical surgery would be needed for survival in the emerging knowledge based economy seemed exaggerated for most US companies. Soon many of the worlds largest organisations went into major painful restructuring.

The new emerging economy and civilisation in the United States, Europe and Japan represents the most important change in the global economy since the spread of factories.

This historical transformation picked up speed in the seventies and was well advanced by the 1990's. Industrial war and economies raced towards obsolence. It is apparent the biggest shift of power now is not between north and south, east and west or different religious and ethnic groups. The deepest economic and strategic change is the division of the world into three distinct and potential clashing civilisations.

1.2 THE MASTER CONFLICT

As the second set of revolution changes started, bitter and sometimes bloody conflict broke out between the new industrial- commercial groups and agricultural landowners. Even the churches got involved, themselves large landowners siding with the agrarian society.

A pattern of strikes, rebellions, civil insurrection, border disputes and nationalist uprising repeated itself in most industrialised countries. As the tension between the agrarian and industrialised interest grew, it became the central or 'master conflict' from which most other conflicts were derived. The United States new industrial - commercial north fought and won a very bloody civil war against the agrarian civilisation.

The new way of making wealth created by the growing industrialised civilisation unbalanced relationships between countries and created power vacuums and shifts. As the national markets and the ideology of nationalism escaped, countries like Germany and Italy fought wars on national unification.

Uneven rate of development between countries competing for new markets, the use of new techniques to produce arms and power balances all contributed to wars and civil unrest. That took place in Europe in the mid and late nineteenth century.

The centre of power in the world had moved away from the Ottoman Empire and feudal Russia to the new industrialised Western Europe and North America. Modern civilisation had started to take root.

New markets and cheaper raw materials needed by the new industry power lead to wars of colonial conquest and thus dominated the remaining of the states of the First Revolution.

The master conflict between the primitive groups and the agrarian powers continued on as they had for millions of years but after the industrial powers came to play for dominance in

the world those conflicts were less important. The old tribal and territorial wars had always been on a domestic scale, now the industrial age brought on the struggle to a global scale between agrarian and industrial civilisation, which basically determined the shape of the world until recent times. Wars around the world, which seemed unconnected were connected as they took place within this framework '....in fact, expressions of the main global conflict not between competing states but competing civilisations'. (TOFFLER, 1994,P23)

The biggest and bloodiest wars of the industrial age were between industrial countries. World War One and Two were for global dominance while keeping the world agrarian population in their place

The Industrial era clearly resulted in a division, into a dominant and dominating industrial civilisation and a mass of subordinate agrarian colonies. The power was clearly in the hand of the civilisation of the Second Revolution.

That is up to now, we are now moving at high speed to a totally different power structure, which will surely divide the world into three and no longer two contracting and competing civilisations.

The new Third type of civilisation with its own form of, creating wealth, based on 'knowledge,' will change technology, family life, religion, culture, politics, business, hierarchy, leadership, values, sexual morality and epistemology. Just as the industrial revolution had done before, it too will bring enormous change and technology that was thought unthinkable, impossible or socially disapproved of in the past. This is not just a transition of social technological and culture element but a transformation.

It is so naive to believe that peace and tranquillity would be brought about by a new civilisation to the planet, as each civilisation has its own economic, political and military needs.

The new Third Revolution nations sell information and innovation, management, culture and pop culture, advanced technology, software, education, training, medical care, financial and other services to the world. Anyone of these services may also have military protection based on its command of superior third revolution forces and a new form of warfare, the Gulf war has already shown that the most high-tech nation - the United States, can fight and win a non-nuclear war anywhere and against anyone.

1.3 THE AGRICULTURAL REVOLUTION

Throughout history the way people made war reflected the way they lived and worked. In pre-agricultural times i.e. before 8000BC violent battles took place among nomadic and pastoral groups. Small groups fought each other to avenge killing and to abduct women or slaves. These violent conflicts were not the same as war and it was only later that conflict took on the character of war; a bloody clash between organised states.

The Agricultural Revolution started when hunters and gatherers began to change their lifestyle to that of intensive cropping. This was first seen in Iraq as early as 9000BC. From there the spread of farming reached Europe in 8000BC and Britain in 4000BC This was the first great change in the history of mankind. Agriculture changed how wealth and societies were formed. The Sumerian society of the alluvial plane of Iraq built the first city in 3000 BC. Similar irrigation societies formed around the rivers Nile and Indus at the same time. Of the creation of settlements, social and political innovations, war was one of the most important.

The discovery of a town at Jericho in 1952-8 shows when urban life, long-distance trade, hierarchical societies and warfare first began. Jericho, in the Jordan valley is the remains of a town, which by 7000BC housed some 3,000 people who lived from cultivating the surrounding oasis. The military significance is the wall which is ten feet thick at the base, thirteen feet high and seven hundred yards in circumference. A moat thirty feet wide and ten feet deep lies at the base of the wall. Inside the wall lies a tower, twenty five feet high which acts as a look-out and fighting platform. These structures provide a purpose - built fortified stronghold which is proof against anything but a prolonged attack. Jericho had the wall, keep and moat which were main elements of military architecture which lasted in importance until the coming of gun-powder.

"After the excavation of Jericho it was clear that warfare at least for what could be the point of walls, towers and moats without a purposeful, well

organised and strongly armed enemy - had begun to trouble man long before the great empires arose"

(Keegan, 1993, p.125).

An organised form of warfare first appeared in the agricultural period because of major changes which agricultural brought about. Firstly it enabled communities could produce an economic surplus worth fighting over and secondly this period hastened the development of the state.

Pre-modern wars had economic ends and were caused by everything of religious fanaticism to in-born aggressiveness in humans. Men always needed a supply of food and this distinguished war from raiding and violence. To keep fighting for any length of time or distance from home a surplus of food was collected in one place and put at the disposal of a single authority this was now possible.

The link between war and the soil can be seen in the writing of Lord Shang, who was in the service of the state of Ch'in China from 359 to 338 BC. In political ,military landbooks he advised the need to keep people ignorant and to avoid music and frivolities which take their minds away from farming and warfare. Lord Shang wrote,

"If he who administers a country is able to develop the capacity of the soil to the full and to cause the people to fight to the death, then fame and profit will jointly accrue".

(Toffler, 1994, p.36).

Lord Shang was a contemporary of Sun-tzn, who wrote the classic military text "Art of War"

"Many campaigns ended in disaster simply because the troops could find nothing to eat"¹.

Footnote: ¹. Taken from Griffith S.B. Introduction to Sun-tzn , Art of War

1.4 WAR - "A PART -TIME JOB"

The warfare of agricultural societies traces from Iraq and 3000BC to 19th century South Africa where Cecil Rhodes seized large land areas from tribal and agrarian groups . In 1973 US lost a war in Vietnam against an agriculture civilisation army. John Keegan points out that war is

"always limited not because man choose it to be but because nature determines that it should be".

(Keegan, 1994, p.75).

In ancient Greece wars were fought in winter because only then could volunteer soldiers leave their farms. War and soldiering was a seasonal occupation. In the middle ages in France and England kings relied on their nobles to supplement troops. They were only able to mobilise armies for a limited time period. Kings only had control over their own troops, the rest were temporary, poorly trained and not loyal.

In 15th century Florence Guicciardini writes:

"They would spend the whole summer on the siege of a fortified place, so that wars were interminable and campaigns ended with little or no loss of life. Wars are won by industry and cunning rather than the actual clash of arms".

(Fuller, 1961, p.16).

Agrarian age armies were usually paid irregularly and often in land. This continued up to late last century in parts of South America. The cost of having an army in the field was very high and limited many state's war making capabilities unless the fruits of victory were rich.

Wars in Europe in the 15th-18th century were only fought over a few weeks or months. They ended when the money or food ran out often without any fighting taking place at all.

In 1697 Daniel Defore wrote:

"How it is frequent to have armies of fifty thousand men of a side stand at bay within view of one another, and spend a whole campaign in dodging or observing one another, and then march off into winter quarters"

(Fuller, 1969, p. 22).

The weapons of agrarian armies were not standardised. The same applied to tools used to work the land. Manufacture was a craft industry and design changed from one craft person to the next. Land was worked by hand and combat mirrored this. For thousands of years the basic mode of combat stayed the same, face to face killing with axes, swords, lances and pikes. The cross-bow, long-bow, slings and other long distance weapons only played a small part in war making. William the Conqueror in the famous Bayeux tapestry is shown yielding a club.

Military units varied in size, capability, training and leadership. Many were filled with mercenary of slave soldiers such as the slave mumduke armies of muslim Asia and the Ottoman Empire. Communications was primitive and most orders were oral rather than written.

A distinction was made in agricultural civilisations between the warrior and the food-producer or non-combatant. In Greece cities states only fully qualified citizens were enrolled in the army. In feudal countries knights and their retainers were under arms at all times. The civil populations were usually excluded from war.

War in the agricultural age reflected the agrarian economies that created it not only in technological terms but also in communication, logistics, administration, reward structures, leadership styles and organisation.

The invention of Agriculture Revolutionised the war-making system. Every revolution since, in the attempt to create wealth, triggered the same, a corresponding military revolution.

Chapter Two

'FIRE'

**He'd never seen so many dead before
The lilting words dance up and down his brain,
While corpses jumped and capered in the rain.
No, No, he wouldn't count them anymore
(Siegfried Sasson "The Effect")**

2.1 THE INDUSTRIAL REVOLUTION

Auguste Comte wrote in 1842.

"At last the time has come when serious and lasting war disappear completely among the human elite"

(Bramson and Gorthals, (EDs) 1968, P. 360).

The Industrial Revolution marked the start of the second revolution of historical changes. It transformed the way millions of people made a living and the way they lived. War once more copied the way wealth was created and worked.

The Industrial Revolution started in England, with the invention of the steam engine in the late 1600's. Science was transformed by Newton, Descartes rewrote philosophy, and factories grew up in England then France and Italy. By the mid 1700's most of North America was quickly becoming industrialised. By the 20th century in most European countries, parts of Asia, Africa and South America industry replaced agriculture as the main source of wealth.

The peasant-based agricultural population in the late 1700s in the west and later in other parts of the world started to move to larger cities to find work in the new factories. It created a new civilisation to challenge the older agricultural civilisation. This entirely new society transformed by the industrial age forced its armed services to change at every level simultaneously-from technology and culture to organisation, strategy tactics, training, and doctrine.

War became industrialised in these new industrial based countries. Mass production was the core principle of war of the industrial age.

"The emergence of a new form of civilisation the child of the making of

Rousseaus idea of the 'general will' and the energy of begotten Watts steam engine."

(Fuller, 1961, p. 310).

At first industrial countries had institutions - still belonging to the agrarian age and were slower to change than society, but the new society blindly moved towards those of a new industrial age. The tensions between the two created a violent competition for power. Within the nations it led to social upheavals and between the nation themselves an increasing hostility.

2.2 THE FRENCH REVOLUTION.

The French Revolution marked the crisis of the old agrarian regime and the rise of a modernising bourgeoisie. Comte de Guibert (1737-1794) thought that wars of bloodless manoeuvres and honourable surrenders were superficially cheap because they lead to no great political solution. He proposed a very different kind of conflict.

"But let us suppose, that vigorous people were to arise in Europe : a people of genius, of resources and of political understanding: a people who united with these selling virtues and with a national militia a fixed plan of aggrandisement, and never lost sight of it: a people who knows how to make war cheaply and sustain itself on its victories such a people would not be compelled to limit its fighting by financial calculations. One would see this people subjugate its neighbours, and overthrow our feeble constitutions",
(Fuller, 1961, P27).

Jean Jacques Rousseau (1712-1778) in 'The social contract called this Democracy which was based on the idea that all men are equal. Christianity is based on the same idea. Rousseau's phrase 'a man is born free and everywhere he is in chains' lit the fire of the French Revolution.

"The Revolution was an attempt to apply in practice the principle of individual freedom: negative principle, mainly valuable as an instrument to overthrow restriction which have lost their use and meaning and have become injurious".

(Fuller, 1691, p.28).

On July 14 1789 the Bastille was stormed and the first French Republic was formed. By May 20th 1790 war was declared by Austria. Austria was joined by Prussia, Russia and in 1793 by Britain. The invasion of France started in July 1792. The wars of the French

Revolution fuelled by Napoleon Bonaparte, who became the head of government in 1799, lasted until 1815. It was the most extensive and offensive campaign ever known in European history. The french were first motivated by a desire to bring revolutionary freedom to other kingdoms. This didn't changed as they committed themselves to a military programme of national aggrandisement. Napoleon formed an administration to keep his armies in the field.

Apart from Russia all major Central European powers had been defeated in their own territories. Soldiers of smaller state were incorporated into the French army. Within 20 years the European society had become totally militarised. The life of a soldier, once only known to a small minority had become the common experience of many.

The French Revolution brought about the idea of a nation army. The conscription of mass armies paralleled the idea of mass production. Soldiers were now paid by and loyal to their state.

As Marshal Foch quoted:

" The wars of kings is dead, the war of people is beginning."

(Fuller, 1961, p.31).

Democracy made all men equal in theory but conscription did this in reality. Citizens of the Revolution had to take up arms to overthrow the aristocratic classes and to defend against invasion. The logic of the American Constitution, 'the right to bear arms' became a guarantee of citizen freedom. The spread of democracy was meant to eliminate war but instead it led to the greatest political and military transformation the world had yet seen.

Conscription changed the basis of warfare. Soldiers were once difficult to replace and costly. Battles which were once avoided were now sought after because soldiers had become plentiful and cheap. In 1805 Napoleon boasted that he could afford to expand 30,000 men a month.

Armies of organised states once only represented a small part of the population. (In 1784, 156,000 out of 29m) Battles were once infrequent incidents in war due to the cost of keeping an army in the field. The French Republic only fought fifty battles between 1792 and 1800. In 1812 Napoleon lost 28,000 out of 120,000 at Borodino, Russia. At Waterloo he lost 27,000 out of 72,000. Wellington lost 15,000 out of 68,000.

Napoleon warfare brought political and romantic ideology to play in 18th century European warfare. It opened up armies to all men of different classes and backgrounds and brought an end to manpower limitations. The regiment was once a device of restrain violence but Napoleon's wars brought a large blood decisive battle which started to break the taboo of violence.

2.3 CLAUSEWITZ

Carl Van Clausewitz, a veteran of the very first prussian encounter with the French Revolutionary armies and survival to witness Napoleon's defeat in 1815. He formed his theory that the harnessing of popular will to strategic purposes - bring 'real war' to approximate with 'true war' and founded this belief that war making was ultimately a political act.

After the defeat of Prussia in 1806, Clausewitz remained part of a skeleton army, which was tolerated by the French.

In 1812 he went to Russia and joined the Russian army, fighting for freedom against Napoleon . The disaster of 1806, had shaken his strong belief in the Prussian state, but he remained strong to the regimental culture which he had grown up in.

The regimental system, had replaced the feudal armies of the past, though out Europe, By the 1800's, full-time, professional armies were common, which were divided into regiments, placed around different areas of the population. A regimental society formed, with their own values and rules which lived in isolation from the society it was there to protect.

What Clausewitz called 'true-war', was where ideals of regimentals soldiering, ruled the way war was fought and won, and where human nature had no place. The ideals which involved single-minded courage, self-sacrificing honour, the officer defied nature, and the conduct of soldiers, which Clausewitz was convinced any professional soldier should make his end.

'Real war' was where human nature was allowed to control war. A warfare like that of the Cossacks people, from the steps of Russia, whose whole culture and economy was formed around warmaking. Clausewitz had seen the Cossacks himself in Russia and was sickened by their brutality.

He believed their nature, (which caused them to fight or to run, when it suited their own ends) and real war, had no place in war.

Clausewitz had seen how powerful and more motivated the French armies were, to that of Prussian or Britain. This made them almost impossible to beat, they fought not only to defend France, but to spread their liberating principles to others.

Clausewitz always remained a Prussian nationalist and when he returned to Prussia he set about to design a theory that would ensure Prussian victory in the future. His dilemma was how he might form a warfare like that of the French Republic armies, without the political upheaval of a revolution, which he didn't want to start. Where as politics had been everything in France, in Prussian politics it was not important, power was still in the hand of the king after the wars of 1815.

Clausewitz set out to persuade the prussian army that warfare was a form of political activity and the nearer it was to 'true-war' the better it served the state's political ends. Any gap between true-war and real-war, could be put down to a simple strategy, for political necessity. Then the prussian soldiers could be safely left in a state of political innocence but fight as if they had politics in their blood.

Clausewitz's answer to his military dilemma, was similar to Carl Marx's solution to his political dilemma, and Clausewitz was highly regarded by Marx's follower, like Lenin. Marx's methodology of reductivism went along the same lines as Clausewitz's reduction argument of the worse war is the better and the closer it is to true-war than real war the better. Marx argued that the worse the better in politics, the worse being class - struggle, and revolution of the working class over the industrialists: The overthrow of real politics of true society of proletarian victory.

Where as Marx wanted to overthrow the whole system, Clausewitz believed in changing the system that was already there from the inside. Marx's "Kupilul" set out to inspire revolution

and Clausewitz's 'On War' set out to revolutionise the military not the state. 'On War' argued that soldier alienation from the hardship of wounds and death of war, would lead to defeat and army collapse: unless they could be convinced that true war better served the state than real war.

Protracted 'class wars' which Marx called class-struggle are intolerable to any society and revolution goes far beyond this still. Similarly true-war could go beyond that which a society could bear and the gap between real-war and true-war could become so close, which happened in the First World War.

Clausewitz's ideas were taken up and shown to work by the Prussian government, which they transmitted to the military. After the Prussian victory in the wars to unify Germany, the rest of the industrialised Western World took Clausewitz's teaching into their own government and military.

Clausewitz believed in the primacy of politics rather than culture and this failure to see the importance of cultural factors in human affairs, was common among writers of his time, which grew from the Enlightenment.

The Wars which Clausewitz knew and fought in the war of the French Revolution which had a strong 'political motive', and which Clausewitz saw as the controlling factor, had misled him.

Clausewitz and his contemporaries dismissing the importance of cultural effects on war was their shortcoming.

Culture, "is as powerful a force as politics, in the choice of military means, and often more likely to prevail than political or military logic."

(Keegan, 1994, p.34)

By the last half of the century Clausewitz's theories were institutionalised by the government, military and populations in the industrialised Western countries e.g. Germany,

Britain, United States.

He gave the means to justify warmaking and the preparations of war to leaders soldiers and public alike.

Clausewitz's ideas made possible the acception of universal services in the military, without having a popular state. This formed a warrior culture in Europe, in the late 19th century, with a belief in nationalism and the romantic and heroic idea of war. Clausewitz designed a military system to serve and protect a particular way of life. By making warrior values paramount, by linking those values to preservation of the industrialised economy and by sterilising the male community in military service untire well past maturity, denied itself the chance to evolve and adapt to the world around it. This is what happened in Europe thus leading to the First World War in 1914.

Where all other cultures had placed limits and rules on warmaking. Japan had outlawed the gun in the 17th century, Muslims always outlawed war against other Muslims in the religion The Western European society had the combination of face to face style of combat with which the ethic of honour was embedded, with Clausewitz ideological. When the technological element - weapons of mass destruction were added to it produced an industrialised civilisation warfare, which brought about mass losses of both soldiers and civilians in both World Wars in the 20th century and the means to destroy the planet in the nuclear age. When the Western way of warfare was directed against other military cultures it proved irresistible, turned on itself it brought disaster and threatened its own existence.

2.4 THE FIRST OF INDUSTRIALISED WAR

The United States Civil War, 1859-1863 had economic causes and its progress shows the increasing dependence of armaments on industry, as well as the decline in morality. The old agrarian culture was under threat by the advancing materialism industrial values. The war was a rural-urban contest in which the industrialising North defected the agricultural South.

Both sides in the war had imposed the draft by 1862. At the same time in Japan the Meiji Revolution which started the country industrialising, had to impose the draft that replaced the feudal Samurai warriors with the conscript soldier. Mass conscription was common in both countries at time of crisis but after the war and tensions eased, armies returned to volunteers only.

The most important change seen in the United States Civil War was the effectiveness of armies and weapons which had been transformed by industrial principle such as, 'standardisation'. New standardisation weapons (e.g. rifles, hand guns) were produced in large numbers using new mass production methods. It was now possible to arm the entire army with the same weapon like the rifle which used the same cartridge, bayonet, ramrod, screwdriver and parts, solving many problems of re-supply or breakage.

War to help to speed up the industrial process itself by spreading the principle like, for example, 'Interchangeable parts'. This basic innovation turned out everything from handguns to pulleys needed for sail-driven warships.

These basic industry principles were also soon applied not merely to weapons, but to the military training, organisation and doctrines. As division of labour used in the new business of the industrial age was re produced in the rise of new specialised branches of the military. As with business, bureaucracy grew with the development of general staff. Written orders replaced oral commands.

Marion and Susie Harris pointed out about the Japanese army in the Soldier of the Sun,

"The 1880's were the years when the army evolved and entrenched a professional establishment, capable of gathering intelligence, formulating policy, planning and directing operations, and recruiting, training, equipping, transporting and administering a modern armed force."

(Toffler, 1994, p.43).

The United States Civil War had shown how the mechanisation of warfare brought an end of the taboo and cultural element which once limited the violence of war. The very high death rate, some 60,000 in the war proved the effectiveness of the new changes in warfare. Changes which followed the changes of the new economic and technology of the industrial civilisation.

"A three-inch mortar used by the union in the civil war during sieges was how to have a devastating effect on advancing troops".

(Griffin, 1994, p.32).

New weapons such as the improved rifle, mortar and machine gun, created a new kind of firepower, with an unlimited killing power and so lead to the need for new tactics. The drill; face to face style of combat, which Napoleon had put to use so well and which Clausewitz had based his technical theory's on. It involved men marching side-by-side towards his enemy on open ground but against fast loading rifles and machine guns used by the North at the end of the war. This tactic resulted in a very large number of deaths in the civil war. In the First World War similar tactics were used with even higher losses.

"In 1860 a rapid fire gun designed by Dr. Richard Gutling was tested in Indianapolis. With the gun 200 shots can be fired each minute".

(Griffin, 1994, p.73).

Industrialisation speeded up in the 19th century in the United States, Japan, Britain, France, Germany and Italy. It led to improved railways, roads, harbours, energy supplies, communication, schools, hospitals and other infra-structure of a vast and non-violent economy. Through the more efficient means of tax collection, public health and birth rate improved and these taxes also gave the means to fight 'true war'. New and ingenious military technology and the forming of the strongest warrior society the world had ever seen, in 1800's Europe.

The American civil war was derived from the 'master conflict'. The industrialised Northern civilization dominated the agricultural South. It acted as a warning alarm of how unlimited war in the industrialised age had become in terms of death rates and the extension of fighting to a wider area and a larger number of well armed and trained people, without to the same extent the problems of supply, weather, environment and time.

The death of 60,000 from a pre-war population of 32,000,000 left an emotional wound in the American people of the horror of war and unwillingness of its people to accept the false romanticism of uniform and training camps. Europe took no notice of the results of war and followed the same path as the United States had in the 1850's.

2.5 THE WAR TO END ALL WARS ?

The First World War (1914-1918) showed how misleading the idea that war is the continuation of policy by other means.

Between 1815 and 1914, despite the international conflicts of 1848-71 and a furry of unrest and civil wars, was the most peaceful century in European History. Mis-understanding and tensions between nations were growing through this time.

Nation after nation was industrialising e.g. Belgium, Holland and Austria. This lead to increasing competition and untrust between the industrialised nations and to mass colonisation in Africa and central and south-east Asia.

By the early 20th century this competition developed into an arms race between the Europeans states, to turn out the more powerful, largest weapons of mass destruction. the British Dreadnought building programme of 1906-13, an enormous fleet of battleships, intended to prevent a German attack, by their expanding Dreadnought fleet. By 1905 the six major powers in Europe formed two groups, where if one was attacked the other would come to their aid. the two groups were the 'Triple Alliance' of Britain, France and Russian and the 'Triple Entente' of Germany, Austria and Italy.

When the First World War did start in 1914 those and other policies only played a small role in the overall causes of the war. Where as politics had meant so much in the 19th century, it was the giant cultural aberration, from the century, in which the causes of the war were rooted. Militarisation was accepted on a scale never before seen throughout the once non-warrior population of Europe. This was done through their government from above.

The political object of the war, which was hard to define in the first place, was soon put in the background. The countries involved soon found themselves fighting the war for the sake of war itself. As true-war and real-war became almost the same, politics was to reduce a

mere justification of bigger battles and longer casualty lists.

The growth of nationalism in states such as Britain, Germany, France and Austria, which was fed by their success of imperialism overseas, created a wide popular support for the enlargement of the armies. which were a mark of nation power at this time.

The very thrill of the process of militarisation itself was a powerful cause for it's support to the public. The appeal of the citizen-soldier, which had its roots in the French Revolution, that service of a soldier made a man a full citizen of the States. Soldiering too had become a good healthy living by the 1900's, where once disease killed more soldiers then fighting. The army, by sending back home stronger and fitter men, improved the whole populations health. In the late 1800's the need for mercenary and the old warrior class monopoly over leadership had ended. High ranks were open to the new middle classes, thus rising their social level. Uniform became to all young men, a mark of equal members of the community.

Mass universal conscription had become an accepted part of life to most young men in Europe in the late 19th century. This brought the exception of warrior values to most parts of the civilisation of Europe. this burned and waited under th surfaces of progress and prosperity.

The populations of th Triple Alliance and Triple Entente, which had embraced the out break of 1914, believed that they would win not only victories, but glory in their return, which would justify all the trust they had placed in universal service to their nations and their commitment to warriorism.

The War with 20,000,000 dead destroyed that illusion, showing how the philosophy of conscription and politics of 'every man a soldier' rested on a fundamental misunderstanding of the potential of human nature.

Warrior people like that of the Cossacks or the Huns, made every man a soldier, but they

took care to limit the way they fought. They fought only on their terms avoided direct or sustained conflict with the enemy, allowed disengagement and retreat as a permissible and reasonable responses to determined resistance. They made no fetish of hopeless courage and took careful material measure of the utility of violence.

The ancient Greeks, who used a bolder face to face style of fighting had not pushed their ethic of war making to the point, where Clausewitz demanded the 'decisive battle', to totally overthrow at all costs, ones enemy as the only outcome. Other Europeans in the past also had limits on the object of their warmaking; the Romans to that of consolidating but then carefully assured a defensible frontier for their civilisation. This was the same as the Chinese military philosophy also the Roman successors had fought incessantly more for the enjoyment of rights 'within' quite closely circumscribed territories.

In other forms of battles for rights, which also characterised the war's of states in the gunpower age, and where religious differences were expressed in the Reformation, the Protestants had acted to challenge rather than overthrow.

In none of these conflicts did the parties involved, go as far as mobilising the whole population to prosecute the quarrel. Even when there were no limits on materials, money or manpower, no-pre 1784 society considered soldiering a calling for any but a small few.

"War was rightly seen as a too brutal a business for any except those bred for it by social position or driven to enlist by lack of any social position; whatsoever; mercenaries and regulars alike, poor, jobless, other criminally outcast,were judged fit for war because peaceful life offered them nothing but equivalent hardship."

(Keegan, 1994, p. 364).

The submerged warrior societies across Europe rose up to wage war for four bloody years They were without a real idea of what sort of aim they were to end on. As well as being

without the limitations of the past - cultural, material, manpower or nature to limited warmaking and violence, the fast victory which both sides believed in become a very bloody stalemate. With the little attention statesman and soldiers paid to the radical changes in the techniques of war, the regimental value of the conduct of soldiers, which Clausewitz taught was lost in the muddy battle fields of France.

The war was only ended after a long blockade of German industrial power and agriculture production which collapsed in 1918.

Clausewitz had even seen the need for limited political aim which one set out to achieve.

" The destructive means employed a profitable and must be limited "

(Fuller, 1961 p. 313).

The army generals before 1914 were influenced by Clausewitz's writing of mass manpower and mass battles to overthrow ones enemy's. They still insisted on the need for a high number of men that would be deployed to gain advantage on a future battlefield. As the mass armies meet the weapons of mass destruction - the new tanks, poisonous gases - in the First World War, they were like lambs in a slaughter house, mass factories had replaced mass manpower as the powerhouse of an army in the 20th century.

At the beginning of July 1914 there were four million Europeans at arms, by the end of August there were 20 million and 10 thousand had already been killed. The willingness of the states to sacrifice their own people for the aim to destroy their neighbours and the catastrophic outcome of the war was not caused by Clausewitz's study. It is right to see him as the ideological father of the First World War, just as it is right of perceive Marx as the ideological father of the Russian Revolution of 1917. The ideological of true war was the ideological of the First World War armies which they brought upon themselves.

The institution of Clausewitz theory had brought about the belief that war was a

continuation of politics by other means and this was used to justify the governments warmaking activity, which lead towards the non-popular states being able to use the move of the population to warrior values is to further their political aims.

Clausewitz did not create the unprecedented cultural mood that dominated European society in the 1800's which accepted the right of the state to demand the duty of every fit male individual for military service. Thus creating an end of the old age of fear of training camps and the social distinction between the warrior and the non-combatant.

The war of 1918 shows the hollowness in Clausewitz. That war is on the continuation of politics and the danger of allowing warrior value become paramount in a society, as culture demands, are more likely to out pass policy as a controlling factor of war. It is added to by the changes in the military which had copied the Industrial Revolution and was at the start of becoming an unlimited form of war.

Chapter Three

"NUKE"

**"Victory is the greatest tragedy
in the world except for defeat', Wellington -
(surviving the aftermath of the Battle of Waterloo 1815)**

3.1 DEATH ON THE ASSEMBLY LINE

After the end of the First World War, the victory nations, Britain, France and United States, instead of elimination of the economic and cultural causes of the war they simply returned to the industrialised process of uneven development and competition for new markets and world power. This had created the tension and policy of militarisation in the first place.

In the year's that followed European nations were in economic and political chaos which was planted in the peace plan of the Treaty of Versailles. The war soon became a stalemate, the power of the economic blockade was seen by the allies who carried on the economic and psychological attack against Germany and Austria until they signed the Treaty, which stripped their countries of some territory, industry and their national pride. Thus the conflict continued in a different form than military, therefore there could be no peace because an unsupportable peace is an oppression, which will only work if the means of revenge are denied.

During the war, the allied nations had been told that it was being fought to make the world safe for democracy: but once the war ended the opposite happened. Democracy was left so unsteady that one dictator after the other emerged from the chaos to establish autocracies of various kinds in Poland, Turkey, Italy, Spain, Portugal and most notable Hitler in Germany. These dictators stood against not only the old democratic order but also the new marxist order which took root in Russia which threatened every non-communist country at the ending of the war.

While in Europe the nations were in a revolutionary turmoil: America's industrial concentration developed at a high speed, with some 200 giant corporations involved half the wealth of country. This centralisation of wealth did increase productivity but failed to build up the peoples purchasing power to consume it, so it ended in the financial crash of 1929 and out of the crash, the United States government got greatly involved in industry itself. In Russia this already had happened, a Big Business became part of big government. Lenin's

experimentation in Marxism in Russia soon forced him to introduce state capitalism and new economic policy to build up the country industrial and economic power.

In 1933 both Roosevelt in America and Hitler in Germany set out to solve the same problem, how one could build up their nations, both industry and society in terms of wealth and power over other countries. At the same time try to guard their economies against future economic problems. Roosevelt's 'New Deal' or Hitler's 'New Order' could find a way to equilibrate consumption with production. They were instead impelled towards war as Lewis Mumford pointed out,

"an army is a body of pure consumers... it tends to reduce towards zero, the gap in time between production and profitable replacement..... Quantity production must rely for its success upon quantity consumption and nothing ensures replacement like organised destruction".

(Fuller, 1961, p. 312).

Adolf Hitler came to power in Germany in 1933. New Order policy started to build up the country's industry and economy once more. At the same time he reintroduce rearmament and universal conscription, which proved enormously popular not simply because it reduced youth unemployment and regained the territory lost in the war, but it restored German national pride as Hitler demanded revenge for the Versailles Treaty.

France in the aftermath of 1918, sought literally to wall itself off from a renewal of the trench agony by building a simulation of the trench system in concrete, along the German frontier, the Maginot Line.

Britain too reacted, but without the French realism to another war by adopting the ruling that, for the purpose of framing the (defence) estimates (it should be assumed) that at any given date there will be no major war for ten years. This was renewed year by year till 1933. Even with the growing power of Hitler Germany in 1933, Britain took no steps to re-

arm until 1937. While Germany was once again creating a new warrior culture among the new German generation.

When the Second World War came in 1939 there was 45 million deaths but no unemployment. The United States relied on its industrial base for victory. They sent 15 million men to war and their mass-manufacturing industry made 6 million rifles and machine guns, over 300,000 planes, 100,000 tanks and armoured vehicles, 71,000 naval vessels and 41 billion rounds of ammunition.

The Nazi's showed the awesome potential for industrialising killing: murdering 6 million jews in a true factory style - creating in effect, an assembly line of death.

As the war consumption put a strain on production and the urge to destroy, it led to an unbelievable collection of lethal weapons, resulting in the slaughter of 15 million soldiers and over 30 million civilians. Even before the outstanding development of the atomic bombs which totally destroyed Hiroshima and Nagasaki, the war has reached unparalleled levels of mass destruction.

For example 334 American B-29 bombers on the 9th March 1945 hit Tokyo in a single attack. While flattening 16 square miles of the city they destroyed over 267,171 buildings and killed 84,000 civilians wounding 40,000 more.

Massive air bombing of Coventry in England and Dresden in Germany as well as many other smaller populated centres all across Europe lasted throughout the war. War began to have no distinction between civilian and military targets.

Unlike Sun-tzu in 4th century China wrote, the most successful general was the one who achieved his ends without battle or with minimal losses. Clausewitz taught a different lesson: "War is an act of violence pushed to its utmost bounds" (Clausewitz "On War"). This was the hallmark of the industrial age.

The road to war was once again repeated as in 1914. The peace of 1918 became a mere economic rest for the European nations. By 1939, the new tension and policies were ready to blow up once more, after years of economic competition and hate left over from the last war. When the new warrior cultures, went to war, for the greater good of their state, with larger and more powerful weapons of mass destruction, the war became the most destructive in history. The war threaten to destroy the world itself as the war got near to the 'absolute' of unlimited warfare. One would only be able to win the war by having the industrial means to support the war mass consuming levels. Which was the United States.

3.2. BEYOND THE ABSOLUTE.

Clausewitz wrote of 'absolute war'. The German general Erich Ludendorff after the First World War pushed the concept of 'total war' of beyond that of Clausewitz. Clausewitz saw war as an extension of politics and the military as an instrument of political policy. Ludendorff argued that war to be total - the political order itself had to be subordinated to the military. Nazi Theorists later extended even this notion of total war by denying the reality of peace it self and insisted that peace was only a period of prepare for war.

The German Nazi leader Hitler was probably the most dangerous war leader ever, because he combined in his outlook thee savagely complementary beliefs. Firstly he believed in the technology of warmaking with the view that superior weapons could supply the key to victory. This went against the traditions of fighting power of men and professional skills of the general leadership to bring victory.

Secondly Hitler believed in the primacy of the warrior class, where he used a ritual context to place his political messages.

Thirdly he was convinced that war was a continuation of politics, and even named Clausewitz, greatness at many meetings.

"Revolutionary weapons, the warrior ethos and the Clausewitzian philosophy of integrating military with political ends, were to ensure that under Hitler's hand, warmaking in Europe between 1939 and 1945 achieved a level of totality of which no previous leader - not Alexander, not Muhammad, not Ganhis, not Napoleon - had ever dreamed."

(Keegan, 1994, p. 372).

In its larger sense since total war was to be waged politically, economically, culturally and propagandistically. Therefore the entire society becomes a single 'war machine'. It was

industrial style rationalisation carried to its ultimate.

In practice total war blurred or completely eliminated the line between military and civilian targets. Since everything and everybody supposedly contributed to a total war effort, from factories to the workers homes become a legitimate target.

General Curtis Le May, who led the Tokyo raid and later became chief of the United States Strategic Air Command which controlled the nuclear bombers, insisted if war came there would be no time for prioritization of targets nor the technology for precise targeting. Le May was the perfect believer in the theory of mass destruction.

By the 1960's with Soviet and Nato forces facing each other in Germany 'small' battle field nuclear weapons were added to the arsenals of both powers. The scenario war picture was of vest tank formations rolling over a nuclear and chemical carpet in the ultimate war of attrition. Clausewitz believed politics above all things, modified war and stopped 'real war' from reaching the outburst of violence implied in absolute war. The nuclear age presents a new and terrible dilemma, the means to fight absolute war,

"That to win a war the enemy must be annihilated politically which to be effective demands the occupation of his country".

(Fuller, 1961, p. 314).

Clausewitz recognised the absolute as a theoretical construct but believed it to be an instrument of politics. It has with his concept been revised in nuclear strategy with technology at the most destructive level. Nuclear weapons have taken away the meaning of war: "strategy" and "weapons", once the word nuclear is placed in front of them, thus threatening the very future of state policy which Clausewitz's strategic ideas were intended to further. As Ken Booth points out,

"Once fighting approaches the notion of the absolute war, politics - the

purpose of war - goes out the window. Because of the centrality of politics in Clausewitz's thinking about war, he would have accepted as do all realists, East as well, as West, that the idea of 'victory' by decisive battle is nuclear war is meaningless"

(Blake and Pole, (EDRs), 1983, p. 41).

The implication of such theories on the military was the maximisation of destruction. B.H. Liddell Hunt wrote in his history of strategic thinking,

"For more than a century the prime cannon of military doctrine has been that the destruction of the enemy's main forces on the battlefield constituted the only true aim of war. That was universally accepted, engraved in all military manuals and thought in all staff colleges..... so absolute a rule would have astonished the great commanders and teachers of war-theory in ages prior to the nineteenth century'.

(Toffler, 1994, P. 45).

It was not till after the mid to late nineteenth century that the world became really industrialised and it was then that the concept of total war and mass destruction were so widely adopted. They fitted the ethos of a mass society, the civilization of the 20th Century.

3.3 THE ROAD TO MADNESS

The end of the Second World War and the development of the atomic weapons did not bring an end to warmaking in the years that followed. The time was marked by post-colonial revolution wars through out Asia and Africa, most were inspired by Marxism ideas against their European rulers.

The British in Burma conceded independence in 1948. In Malaya the communist-inspired rising ended only when Britain granted self government to the non-communist. The Dutch, quickly abandoned to restore colonial rule in the East Indies. The French stood their ground and fought in Indochina against the Marxist nationalist, Viet-Ming only to lose against the guerrilla agrarian army.

The Viet-Ming, victory inspired the remainder of European colonies to rise to arms and were strong enough cause to defeat the European imperial power dominance. This Western style, militarisation of the poorer part of the world started in 1945 and went on for 4 decades, was remarkable as it had been in the non-warrior population of Europe in the nineteenth century.

With the same effects of overspending on arms, change over of civilian to military values, dominance of self military elites and the resort to war. The high technology arms came into the hands of the new armies of the poorer agrarian nation, armies without the tradition of military value which had been in place in Europe. This militisation served only to bring the trapping of militarism and war without value.

"Before 1943 radioactivity existed only in traces, in a few rare places on the planet, where for instance, hundreds of thousands of years ago a spontaneous chain reaction occurred"

(Griffin, 1994, p. 199).

The many small wars of the post-colonial era did not greatly alarm any of the victory nations

of 1945 that their peace was not under threat. Their fears for peace came from another - the nuclear weapons which had brought the war to a sudden end in 1945 after the bombing of Hiroshima and Nagasaki.

At first the United States being the only ones with the ultimate weapon of mass destruction had kept fears at bay, war was starting to fall into the background. However by 1949 the Soviet Union had exploded its own atomic bomb.

The industrial world was at East forced to look at the very nature of what it had created for itself, if that was possible.

International hostility had reached the ultimate. Who could be the winner of a nuclear war? Within 500 years from the limit of what man's muscle power could inflict on itself, to a weapon which military theory had justified, could destroy the earth.

Nuclear weapons prayed upon the very minds of man's deepest fears and showed the hollowness of Clausewitz's analysis once and for all. The question of how could war be an extension of politics when the ultimate object of rational politics is to further the well being of political entities? The new dilemma involved with nuclear weapons brought questions from all different sides of the mass society, statesmen, professional military class and anti-war protesters alike.

Academic thinkers paid by a policy-making institution of Western government, reconstructed Clausewitz's logic and argued that it still held good. Nuclear weapons could be made to work for political ends, not by their uses, but by the very threat of their use alone.

The deterrence theory's which had used the old saying to justify itself "If you wish for peace, prepare for war" which since Roman times had been used to justify the rising and training of armies. By the early 1960's this thought had been reformed in the United States doctrine, 'Mutually Assured Destruction' (MAD) policy.

The mutually assured destruction doctrine however was and still is going against human sentiment. Since it implies that the state, if it needs to defend its own existence will act with pitiless disregard for the consequences to its own and its adversary peoples. It is not surprising in the Western world at least where over the past 2000 years had institutionalised the Judas - Christian belief in the unique value of the individual, that deterrence theory evoked the deepest rejection from the population.

Clausewitz's philosophy and his tendency for military extremism to which history has given value too, fitted its deterrence theory so well, as under a threat of nuclear attack the state has to align its foreign policy as closely as it can to its military strategic doctrine. A nuclear state has to show that it means what it says as deterrence depends upon convincing an adversary that you mean what you say and so falls on the mental reservation of the enemy. With nuclear weapons 'real war' and 'true war' were believed to be the same thing and the horror of such was believed in itself to guarantee the war would not occur.

The two weaknesses in this was, one: its entirely mechanistic deterrence had to work in all circumstances, but the truth is the mechanistic means have a very poor record of controlling the way governments behave. Two: the population of nuclear states have to form a schizophrenic outlook of the world. While still believing in democracy and the Judae-Christian ethic - right of the individual, sanctity of human life, acceptance of the free vote etc. - they were at the same time expected to agree in the code of the warrior, of which physical courage, subordination to the heroic leader, and 'might is right' are the ultimate value. What's more this schizophrenia has to be permanent.

As a response of the French Revolution, European states were impelled to remilitarise so from above and it was mostly accepted to a degree. However universal service eventually came to be associated with suffering and death, with 20,000,000 deaths in the First World War and 50,000,000 in the Second. After 1945 Britain and the United States ended the draft. Then in the 1960's the United States reintroduce universal service. The refusal by

conscripts and their families to accept once more warrior value was so strong that it caused the Vietnam war to be abandoned.

On the fall of South Vietnam 1975

"To onlookers that the meaning of the scene seemed plain American wealth and technology had been proved worthless by an improvised but determined foe"

(Life Magazine 2nd April 1995).

Vietnam showed how self-defeating is the effort to run at the same time, in the same society, two mutually contradictory public codes. That of individual right, like life, liberty and the pursuit of happiness and that of total self-abnegation when strategy demands it.

Most attempts to bring about large social changes from above, in the richer state have proved difficult in modern times, most have failed. Social changes from below have proven to be more successful. Notable Mao Tse-Tung in China and his followers in Vietnam and Tito in Yugoslavia both brought about the political results to which they were directed to, but also had calamitous cultural effects. Mass militarisation in the poor part of the world resulted not in liberation but in the trap of oppressive regimes rise to power with widespread suffering and death.

The mass militarisation of the richer industrialised states which lead to high human costs and the development of nuclear weapons designed to end wars, led to the threat of the end of the earth.

By the 1980's with some 2000 inter continental nuclear missile launches and tones of thousands of warheads on both sides in the Cold War, some different and better means of managing peace was clearly needed.

3.4 THE END OF THE MODERN

As the industrial civilization comes to its peak in the past-World War Two period mass destruction became the central role in military doctrines as arms production did in the economies of the industrial age.

By the late 1970's and early 1980's however a Third Revolution was starting its technologies and social reforms began to challenge the Second Revolution civilization by 1980's.

In this new brain-based economies of the Third Revolution civilization, de-massified production - highly customised products-is the cutting edge of manufacture and services are proliferate. Intangible assets like information become the key resource. Old industrial style, large companies will collapse and there be no longer a need for a large labour force. The media too are de-massified in parallel with production. The family system, too, became de-massified: the nuclear family will become a minority to single-parent, remarried couples, childless families households.

The entire structure of society, will be changed, as new culture standards are redefined as the existing values are challenged or ignored. This is happening in the United States, Japan and Europe.

Even in the early 1980's small groups of thinkers in the United States military and the Congress, had started to change the American army doctrines, the outer limits of new post-industry weapons have been reached in a race to extend the range, speed and lethality. The struggle against the Soviet had led to a nuclear standoff and insane threats of 'mutually assured destruction'.

The war of the industrial age- had reached its ultimate contradiction - how can nuclear war further political aims? A true revolution in military was needed and now is happening a revolution that reflects the new economic and technological forces of a Third civilization.



Chapter Four

"DENIAL"

"How do you feel when a nineteen year old kid tells you from the bottom of his heart, that he's gotten too old for this kind of shit?"

(Michael Herr, Dispatches.)

4.1 A NEW WARFORM

The American military like the Company General Motors or I. B.M was perfectly organised for a Second Revolution industrialised world. After the failure in Vietnam (1964-73) against a small First Revolution/guerrilla force in the jungle and the loss of the American public support for the army because of the war. It was clear that the United States Army needed a total overhaul and so moving away from the idea of mass production they set about creating the beginning of a Third Revolutionary Army for a new world based on 'knowledge'.

In 1976 the U.S Army think - tank.TRADOC - The training and Doctrine Command - issued a new army doctrine 'Active Defence', based on the idea of winning a non-nuclear war in Europe against the Soviets, overwhelming manpower and tank superiority. By extending the battlefield into the rear area to intercept the movement of men, supplies and information, to stop support reaching the front lines. These deep strikes would need a closer integration of air and ground forces. The 'Active Defence' doctrine was the start of the move to new ideas of weapons organisation, logistic, electronic warfare which new technologies, marked by the invention of the computer, were starting to bring about.

In August 1982 the TRADOC released the Field Manual (FM) 100-5, which embodied the real means of the forming of a new type of army and within months almost all NATO countries had copied. It highlighted close air and land coordination, deep strikes to prevent all type of support reaching the battlefield and most important it focused on new technologies to hit targets once assigned to nuclear weapons and so reduced the likelihood and need for nuclear use in war.

By June 1993 a renewed Field Manual (FM) 100-5 was published. Military doctrine needed to be renewed each year or two where it had forty to fifty years in the past. this Manual said that recent experiences gave a glimpse of the new methods of warfare and the Gulf War was the end of industrial age warfare and the beginning of warfare in the information age.

The last version of the doctrine placed high belief in versatility - the ability of an army to change quickly from one kind of conflict to another.

Beginning with a global focus instead of a European defence need and from the idea of forward deployment (Forces based near zones of potential conflict) to the idea of a United States based force that can go anywhere in the world fast. Moving away from the need to fight a global war with the Soviets to an emphasis on regional contingencies. For the first time the new doctrine paid attention to what it called 'operations other than war', including disaster relief, civil disturbance, peace keeping and counter-narcotics activities.

It outlined that the United States Army is responsible to the American people, who want a fast victory and no unnecessary casualties. They also have the right to re-think their support if these conditions are not met.

The United States Military consciously adopted the changes brought about by the Third Wave of change. True military revolution has only happened twice before which changed the same game and its rules. It is now clear it will happen once more. Only in the past few decades have some of the main perimeters of warfare been pushed to their limits such as range, speed and lethality.

Range: The crossbow, used in China in 500BC and Europe by 1100 gave a 'standoff' weapon to soldiers with enormous reach of up to 380 yards. In 1139 Pope Innocent II tried to ban these terrible weapons. World War II saw aircraft capable of flying up to 6,000 miles. Now the potential for space based weaponry is thinkable. There is no part of the globe that in theory could be targeted by intercontinental ballistic missiles, aircraft carriers, submarines and other weapons. This range has reached territorial limits

Speed: As well with the United States Defence Department, 'Alpha Chemical Laser' made public in June 1991. capable of producing a million watts of power, part of the development of an anti-missile system. The laser can hit a missile at the speed of light

Lethality: The killing power of conventional weapons has increased so much that to days (non nuclear weaponry, on average is 10,000 times more deadly) than at the beginning of the Industrial Revolution. Nuclear is an awesome threat of mass killing on a global scale. It is only within the last 50 years that the real doomsday scenario become a serious discussion.

Range, Speed and Lethality have all reached their outer limit at the same time. This fact alone can justify the term 'Revolution in Warfare'.

4.2 OVER DESERT SANDS

The Gulf war in 1991 saw what the world had not seen for 300 years. The coming of a new form of warfare, which once again closely mirrors a new form of making wealth and once again it finds that the way we make wealth and the way we make war are so close.

Even the worlds most advanced economic societies have not made a total transition to the new system of economics. Those in Europe Japan and the United States are still divided between muscle workers and mind workers. This was shown in how the Gulf War was fought.

The history of conflict shows that in terms of morality, economics or geographic and the actual way in which war is fought have so many implications for countries and armies around the world.

The United States and its allies, were able to fight two very different wars against Iraq's Saddam Hussein. One of the Second Revolution and the other of the Third Revolution warforms.

Saddam with one million battle tested soldiers, soviet-indoctrined and Soviet supplied had six months to dig in and build uncrossable lines of defence believed he had only to wait for America to become politically demoralise by television images of high losses. Political resolve would collapse and victory be his.

Most Western media and politicians did not believe in advanced technology itself but it was wrong to emphasise material over manpower. They predicted high loss, up to 30,000 allies killed in what Saddam called " The mother of all battles," In fact only 340 allies were lost.

"Saddam never understood that an entirely new form of warfare was about to change the entire nature of warfare (Toffler, 1994. p.76).

Third Revolution weapons and not the large Second Revolution weapons were being seen on T.V. over the world. Laser-guided bombs, Tomahawk missiles . Night-vision goggles, and F - 117 A's - Stealth fighters, The result was a very satisfied image of war which seemed bloodless, highly in contrast to the T.V. coverage of the Vietnam War which brought the death and brutality of the old warform, into American homes.

In World War I it was clear where the front line was. For most of the time millions of soldiers sat in stinking muddy trenches, afraid to raise their heads above ground level as disease and gloom spread through the ranks. When they did attack they faced a rain of artillery and small-arm fire. This went on for 4 years.

The Iraqi soldiers believed their bunkers were the 'front line' but the main battle occurred elsewhere. The allies were deepening the battles in all dimensions, distance altitude and time. The rear, the sides and above became the front, plans of action were now planned only hours before.

Long range air and ground strikes, blocked or slowed movement of Iraqi follow on forces, destroyed the enemy command facilities and communications network and wiped out the Iraqi airforce on the ground.

The Iraqi force was a conventional 'military machine' with powerful but stupid technology. The Allied Force was not a machine, but a system with far greater internal feed back, communication and self-regulatory adjustment capability. It was in part, a Third Revolution 'thinking system'

Military doctrine of armies, worldwide continued to change with the central themes of the U.S Military (FM) 100-5 Changes in the economy and society are already at work in the worlds military. Knowledge, no longer mass production is becoming the key to production and economic value. This was also at the centre of the new changing warfare which share once again many of the characteristics of the new advanced economy.

4.3 DENIAL

With the Western industrialised way of warfare in the 20th century reaching the ' absolute where the level of violence and the means to fight have become unlimited. The hopes for peace, which science, technological, the growth of wealth and democracy was to bring about clearly failed. Even after the world had seen the horror which war had become in the First World War, it was allowed to be repeated in the Second.

"... .. the logical culmination of the technological trend in the Western way of warfare and the ultimate denial of the proposition that war was or might be a continuation of politics by other means".

(Keegan, 1994, p.391).

Some contemporary observers now believe in a new epic which is forming to day, one in which warfare between major powers will become as outdated as duelling and slavery have in the past. Francis Fulruiyama has argued that the triumph of western liberal economic and political ideals over the contending ideologies of Fascism and Communism in the past years has created a new world in which one will see the growing 'Common Marketisation of International Relations'.

John Mualler in his 'Retreat from Doomsday', strongly argued that historical factors have made warfare between the major powers obsolete. That war in the past was a romantic and heroic thing, where national leaders made the choice for battle on the basis of rational consideration of self interest. People in the 20th century has lost this outlook of war. This can be seen in the 1960's in the United States in a very strong protest against the Vietnam war.

The belief the the spread of democracy will stop war is only based on a very short and atypical history. Popular Governments have got involved in war between each other almost from the beginning of time. The Napoleonic French war of early 1800's suggest that

governments with popular support can become imperial republics intent on expansion. As too with the United States with their intent too bring democracy to others, got involved in wars with Mexico, Spain and the conquest of the Philippines in the last century. more recently the United States interventions in Granada and Panama shows that even democratic republics are apt to overlook international law in the pride of national effort of accomplish a higher purpose through arms.

Democracies too may bring about political agitator leaders who may lead their people into wars of imperial gain. Napoleon gained power by appealing of the pride and possible gain of the nation. Hitler came to power because democratic leaders were unable to deal with economic, social and political disorder. The Cold War came about through disappointment and fear of the world which one did not understand. Many American's supported leaders who focused popular frustration on an external enemy. In the United States to day, with the growing threat of domestic disorder people are losing hope in the traditional authority to maintain order.

The fact that war cannot pay, being so costly in money and lives, has not stopped decision makers taking that road in the past. The theory at the start of the century, that contemporary weapons had become so destructive and the world so economically linked to gather that major warfare was not likely to happen. Yet many political leaders on both side of each World War assume that the wars would last only a few weeks. Since then the most destructive conventional wars have been based on the same belief, such as the Iraq/Iran war in the 1980's which lasted for 6 long years.

It is now clear, after the end of the Cold War, the 'mutually assured destruction' of the two nuclear powers;the United States and the Soviet Union actually stabilised the world power balance after the 1950's.The world was clearly defined into two camps where it fitted into the global system. While wars raged in Vietnam , Iran/Iraq, Cambodia, Angola, Ethopia and other remote poorer Third World location, no fighting took place on the territory of the major world powers and they were never a threat to the economic existence of those powers.

The two superpowers in recent years spent a trillion dollars annually for military purposes. Mostly on themselves and their allies. As well as giving large sums towards fuelling some of the 160 wars of the post war era. They also served to suppress some of these conflicts and generally keeping their camps in line because of the danger of limitless nuclear war.

Since 1991, when the Soviet communist government was moved from power, the existing military structure was devolved.

Once the threat of nuclear doomsday had ended, after almost half a century, many politicians talked about a new era of peace. in particular in the Democratic countries, at last, will have no need for war.

"History has already shown how wrong this runaway optimism can be H.G. Wells wrote 'nothing could have been more obvious to the people of the early twentieth century than the rapidity with which war was becoming impossible.

(Toffler 1994, P. 14).

The First World War was known as 'the war to end all wars' but this was not so obvious to the millions who died or suffered in the trenches in France.

Once the war was over Pollyannaish prognostication once again filled the diplomatic air, which Henry Ford in 1928 said

"people are becoming to intelligent ever to have another big war,"

(Toffler, 1994, p.15).

A few years later, in 1939, the Second World War, the most destructive war ever fought, only ended after the atomic bombs at Hiroshima and Nagasaki in 1945. The United Nations were formed to keep world peace once again believed in the illusion that lasting peace was

at last here. That was until the start of the Nuclear stand off of the Cold War which began in the 1950's.

Ever since 'peace' broke out in 1945 there has been 150 to 160 wars and civil conflicts. With an estimated 7,200,000 soldiers killed, almost the same number in all of the First World War, some 8,400,000. More or less the equivalent of the First World War have been fought again. These numbers do not include the civilian deaths which bring the figure to 33 to 40 million. These figures are not including the wounded, raped, dislocated, diseased or impoverished. For the most part, these killings were by cheap, mass produced weapons and small calibre ammunition, costing little more than a transmitter radio and dry -cell batteries which have flooded the world in the same period.

Once again after the break up of the Cold War in 1991 predictions of lasting peace rang out and a new theory (which was an old one revamped) became popular. That the shape of tomorrow would essentially be determined by economic, not military warfare.

As the nations of the world become more economically dependant the less likely they would fight one another. Trade and no longer military action may now be the road to world peace. These geo-economic theory helped elect Bill Clinton to the White House in the belief that if the military budget was greatly cut, the overdue social changes could be paid for without increasing the already huge government deficit. Better yet, he would re-focus America on domestic problems and if war was to be on economic battlefield, they would need an 'Economic Security Council' to wage economic war.

The geo-economic theory of peace began to look less likely as violent conflicts once again started to reappear around the world by the mid 1990's. Under Clinton's leadership, the United States sent troops to Bosnia after they had made it clear that they would not. They were peace enforcers, not peace keepers. At the some time Clinton's domestic problems grew with the collapse of the Federal government services, due to the lack of money.

The geo-economic in the 1990's tried to explain world power in terms of only two factors - economic and military. They too overlooked the growing role of knowledge in the changing way of making wealth and the new civilization based on these changes, which is now at the core resource of all advanced economic and of military effectiveness.

To-day war rages in Bolivia, Grozny, Tanzania and Northern Ireland. In 1990 there were 31 armed conflicts in progress alone. Of the 200 members of the United Nations war has raged in over 60 of them, since 1945. Even the victory nations have found themselves in war. Britain in Malaya 1950-1956, and Oman 1970-1976 plus others. France in Indochina in the 1950's, The United States in Vietnam in 1966 to 1973. Whereas Germany and Japan, the loser of 1945, have not fought any wars.

National political leaders are now finding it harder to manage their economy. The time of peace after the Cold War, like the time before the two World Wars, maybe only a time of an economic pause, before the next war.

CONCLUSION

But the past is just the same - and wars a bloody game

Have you forgotten yet? ...

Look down and swear by the slain of the war
that you'll never forget.

Siegfried Sasson

"Aftermath"

(Caputo 1982, P.338)

War is not the continuation of policy by other means. The industrial age has been held at ransom by Clausewitz's logic, which 'On War' implies that of the existence of states, of state interests and of rational calculation of how it may be achieved. Yet war pre-dates the state, diplomacy and strategy. Clausewitz's work goes no further than what Aristotle said, 'man is a political animal'. Neither confronted the thought that man is a thinking animal in whom the intellect directs the urge to hurt and the ability to kill, which is just as hard to modern man to confront.

Russell Weigley wrote that war showed itself not as an 'effective extension of policy by other means ... but the bankruptcy of policy', (Keegan, 1994, p.57), in the 20th century.

We have seen how each civilisation has given rise to its own way of waging war. The first civilization warfare and wars clearly mirrored the agriculture economies that gave rise to them, not only in technological terms alone but in organisation, communication, logistics, administration, reward structures, leadership styles and cultural assumptions. The wars in this period had always had laws and limits on it, from cultural taboos on violence to the environment factor. In short war never involved more than but a few people and never got near the point where war threaten all mankind and the planet itself.

Starting with the very invention of agriculture, every revolution in the system for creating wealth triggered a corresponding revolution in the system for making war.

The second civilization which began in the same century as the French Revolution, military logic and cultural ethos took divergent and contradictory course. In the developing industrial world, conditions of growing wealth and the rise of liberal values encouraged the likelihood that the hardship under which mankind had laboured was about to end. That optimism proved not enough to alter the means by which states settled disputes between themselves. A lot of the wealth created by industrialism, went to militarise the population that it befitted. When war did come in the 20th century, there was no limits to the destruction and killing of both soldiers and civilians alike. As war spread into the poor world, peasants became warriors, to win freedom from the European empires. Both developments ended in frustration.

The high human costs of mass militarisation suffered by the industrial states in both world wars lead to the nuclear weapon which was made to end the war in 1945 without the loss of more soldiers, but now they threaten the end of everything. Mass militarisation in the poorer world resulted not in liberation but the entrenchment of oppressive regimes and widespread suffering and death. War in the industrial age has reached the unlimited, the 'absolute', breaking most rules and laws, that once limited the violence and war-making. After all where is the victory in a nuclear war.

Today the world is moving away from the two-level power system, where the industrial economy dominated the agricultural economy, after a lot of unrest and conflicts. With a new civilization, who's wealth making is based on 'knowledge', and have started to take hold in the United States, Japan and Europe. The world now has a three-level power system. This new civilization will bring tensions between it and the older forms of civilisation, and the new civilization will fight to establish global hegemony, just as the second civilization did with respect to the first pre-modern societies in the past.

As countries race to transform to the Third Revolution high-tech characteristics, will go through periods of domestic dislocation and unrest. The historic change from a bisected to a trisected world could well trigger the deepest power struggle ever seen, as each country tries to position itself in the new power structure.

The United States military, showed in the Gulf War in 1991-1992 has already started to move to a new form of armies and warfare based on the new revolution of 'knowledge'. The result is a radical change in how the future wars are fought and new problems of keeping the peace.

The new economies, core principle of "information sets about de-massification of the world company's, production and militaries. War too will become de-massificat as the threat to peace will come from small local conflicts spread throughout the world and no longer nuclear war or a large global conflict.

With thirty wars raged at the beginning of the decade this number could easily become fifty to a hundred by its end. Any of the high-tech nations on their way to developing brain-force economies could be pulled into these conflicts or even two advanced technological nations may end fighting one another, with trade-wars becoming actual war.

These new brain-force weapons from laser guided bombs to combat robot and smaller forms of war will become more important because government will find it a relatively low cost option instead of fielding a large conventional force, to reach their goals. They can be used not merely for tactical but for strategic purposes. It is not only by governments but international agencies like the United Nations itself or even perhaps by non-national player on the global stage from transnational corporations covertly employing mercenaries to fanatic religious movements.

The transformation of weapons, armies and war will place strange new questions to peacemakers and peacekeepers. How should the world deal with endless outbreaks of 'small

-wars', which no two resemble one another? Who will rule outer space? Can we prevent or contain bloody wars fought in battlefields full of 'virtual-realities', 'artificial intelligence' and 'autonomous weapons' - which will, when programmed decide on their own when and whom to fire? Should the world ban or embrace a whole new class of weapons designed for bloodless war?

With all the new hopes for peace in the western world that came about after the end of the Cold War in early 1990. That democracy, politicians and economics will bring about, once the threat of nuclear doomsday had gone. The possibility of a no-war world, that many optimists are suggesting seems now more difficult to obtain as the world becomes more trisected and new arrangements lead to new conflicts and new conflicts can lead to the use of arms.

War has truly become a disease of mankind, but we still have a long road to go before the possibility of world peace is fulfilled. We must first put the old nightmares of nuclear doomsday aside and begin thinking now about the politics morality and military realities of warfare in the twenty-first century. This can be started by understanding the profound revolutionary new linkage between knowledge, wealth and war, as Leon Trotsky pointed out, 'You may not be interested in war, but war is interested in you'.

THE END

BIBLIOGRAPHY

Blake, N, and Pole, K (EDs), Dangers of Deterrence. New York, P.K.P, 1983.

Bramson, L. and Goethals, G.W.(Ed's), WAR. New York, Basi, 1968.

Camings, B., War and Television. New York, verse, 1992.

Caputo, P., A Rumour of War. London, Arrow , 1985.

Clausewitz, C., On War London, Penguin 1993.

Clarke, R., Notes on the Future. London, T&H, 1975.

Del Vecchio, J.M., The 13th Vallery. London, Sphere, 1975.

Fuller, J.F.C., The Conduct of War, London, Eyre and Spottiswoode, 1961

Gat, A., The Origins of Military Thought. Oxford , Clarendon 1991.

Glad, B.(Ed's), Psychological Dimensions of War, London, Sage, 1991.

Griffin, S., A Chorus of Stones. London Women Press, 1994.

Hall, S. and Gieben, B., Formations Modernity , London, Open University, 1992.

Herr, M., Dispatched. London, Pan, 1979.

Keegan,J., A History of Warfare. London, Pimlico, 1994.

Thompson , W.R. On Global War South Carolina, University Press, 1988.

Toffler, A. The Third Wave, Warner Books, USA, 1980.

Toffler, A& H. War and Anti-War, Warner Books, USA, 1994.

Sun-tzsn- Art of War, London, Starting, 1972.

Stoessinger, J.G., Why Nations go to War?, New York, Trinity, 1990.

MAGAZINES

4 Photograph, Life, The Observer Paper, (Weekend Magazine), 2nd April 1995.

1. The first part of the document is a list of names and addresses.

2. The second part of the document is a list of names and addresses.

3. The third part of the document is a list of names and addresses.

4. The fourth part of the document is a list of names and addresses.

5. The fifth part of the document is a list of names and addresses.

6. The sixth part of the document is a list of names and addresses.

7. The seventh part of the document is a list of names and addresses.