

Changes and advances brought by the first world war

[Science](#), [Biology](#)



One of the most deadly conflicts in the history of the human race and killing over an estimated sixteen million people brought a tornado of change that swept over the entire world. Known first as the Great War, now known as World War 1, it brought many changes and advances to better our society as well as detrimental effects to events following the combat that began on the 28 July of 1914. Not only were technological breakthroughs made during the course of the four year fighting period through the use of airplanes and the introduction of chemical warfare but social changes that made for a more equal community as well as many political changes.

World War 1 was a transformative movement for many people. What seemed as a distant European confined conflict soon became an event with huge revolutionary implications for the social future of people, especially those of color and women. Since the first Africans were brought as slaves to the British colony of Jamestown in 1619, black people had suffered much oppression in the United States, first under the American slavery system and then under the rigid practices of discrimination of what were known as the “ Jim Crow Laws”. As stated by Bob Beckel, an American political analyst, these laws “ stripped blacks of basic rights. Despite landmark civil rights laws, many public schools were still segregated, blacks still faced barriers to voting and violence by white racists continued.” However, with the entry of the United States into the war in 1917, many African Americans were eager to show their patriotism in hopes of being recognized as full citizens despite segregation. Over 700, 000 African Americans had registered for military service, but were barred from the Marines and only served lowly jobs in the navy. Approximately forty thousand African-Americans served in two

combatant units, the 92nd division and the 93rd, their experiences vastly different, the 92nd being reviled by white American commanders while in the 93rd French officials honored and celebrated their achievements. This service in the army empowered many of these soldiers to demand their individual rights as American citizens, having “repeatedly proved their devotion to the high ideals of [their] country” and giving “their services in the war with the same patriotism and readiness that other citizens did.”

World War 1 was also a pivotal point for women during the war period. As men departed for the front, women were called upon to replace them in a wide range of workplaces. Nearly 200, 000 were employed in government departments, half a million became clerical workers, a quarter of a million worked land and many more worked in munition factories. The women’s continuation to the war effort challenged the notion of women’s physical and mental inferiority to men and made it more difficult to maintain that they were unfit to vote. As seen in Source 1, women can be seen stenciling artillery shells in a munition factory which was extremely dangerous due to the massive amount of explosive material present. Because of this, it seemed illogical to deny women a place in the polling booth and soon many counties started to give women the right to vote. Not only did technology change, but the social rights and lives of many around the world.

The nature of warfare in World War 1 was a dramatic change from previous conflict due to rapid technological changes. It was fought with technology that had advanced far beyond tactics and strategy of the past. The Great War saw the first large-scale use of airplanes by the military. These products

of new technology were made of canvas, wood and wire, first to just observe enemy troops. As their effectiveness became more and more apparent, they started to become attacking weapons, used to drop bombs and attack ground forces. It wasn't long before shots were being exchanged and set in motion an aerial arms race. Early installations featured machine guns mounted by a gunner who sat next to the pilot or mounting the gun well above the pilot, to avoid shooting the propeller, but both options had large faults. However in 1915, Dutchman Anthony Fokker devised a brilliant invention that would solve all their problems, the synchronization gear or the interrupted gear. This gear would allow machine guns mounted right in front of the pilot, who could point his plane to aim and fire on enemy aircraft or the trenches down below. Source 2 depicts a diagram of the production form of Fokker's "Stangemsteuerung" synchronization mechanism, starting with the green handle being used to lower the red cam to when the pink firing button would be pressed. World War 1 was also the foundation for chemical warfare. According to the Chemical and Engineering News magazine, about 3000 chemicals were investigated for military use and 50 toxic agents were deployed on battlefields across Europe, killing an estimated 100,000. Three substances were responsible for the majority of chemical weapons injuries and deaths: chlorine, phosgene and mustard gas. The Great War includes the day the poison gas attack changed the face of warfare forever. It first appeared during a surprise attack at Flanders, Belgium by the Germans. At first, it was released from large cylinders and carried by wind into enemy lines. So, phosgene was loaded into artillery shells and shot into enemy trenches. American soldier Stull Holt wrote a letter home recounting some of

his battlefield experiences, labeling his encounter with a shell containing poison gas as “ the extreme terror of the man who goes under in the water and will clutch at a straw.” His “ eyes were running water and burning, so was his nose and he could hardly breathe.” Its use was a frightening development that caused its victims a great deal of suffering. Although technology development greatly during the war, politically, the world was also changing.

The First World War put unprecedented strains on the political systems of all combatant nations and in particular America and Australia. At the beginning of the conflict, America was happy to allow the Europeans to destroy themselves rather than wasting American lives and money by intervening. However over time, issues like freedom of the seas provoked Congress and current President Woodrow Wilson to join in. The main reason America entered the war was because of submarines. German submarines, U-boats, were also a new weapon in 1914. They hid underwater and attacked without giving enemies any warning, killing innocent civilians and military personnel. U-Boats were also extremely effective in destroying Allies shipping in the Atlantic. Passenger liner Lusitania sunk on May 7th, 1915 off the Irish coast, killing 128 Americans and enraging the country. The US demanded that Germany stop unrestricted submarine warfare against neutral shipping and with that, the US slowly moved onto the Allies side, providing them with vital resources. Then on February 1st, 1917, Germany informed that “ the waters around Great Britain and Ireland, including the English Channel, [were] hereby proclaimed a war region,” (Admiral Von Pohl) and on April 6th 1917

after Wilson went before Congress, asking for declaration of war on the basis of “making the world safe for democracy”, they voted to join the conflict. Australia too, had also politically changed. In 1914, the Australian Home Front was ruled by the Liberals but were later defeated at the next election. The Australian Labor Party came to power with Andrew Fisher declaring “to stand behind [Britain] and defend her to our last man and our last shilling” and from 1915, William Hughes was the Prime Minister. Hughes supported Australian involvement in the war and saw himself as responsible that Australia fulfilled its role as part of the British Empire. But by 1916, he knew that great losses being suffered couldn't be met by voluntary recruiting, causing division within the party. After the defeat of the first Conscription Referendum that “Australian people must rise superior to the mendacities with which their ears have been filled”, he joined the Liberals to form a new Nationalist party, this party becoming the government for the rest of the war. Politically, the world was also changing.

Though technology advanced rapidly throughout the course of the conflict, it is clear that it wasn't the only thing to change. As social standards of people of color and women became closer to equal, politically, countries and their governments were changing rapidly as well. The seven million civilians and the nine million combatants who fought on almost every continent