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### Illustrating the Atomic Bomb for Science

In Fetter-Vorm's graphic novel, *Trinity*, a detailed illustration of the research, construction, and subsequent detonation of the first atomic bombs is recounted through an omniscient third-person viewer watching over the workings of the government officials behind The Manhattan Project. Despite other documentations regarding the inhumane nature of nuclear explosives that frequently cite the age old question, "should it be done?", Fetter-Vorm focuses more on the scientific aspect of the discovery. In order to show the foundations of the principles prior to the Manhattan Project, Fetter-Vorm poses the more objective counterpart question: can it be done at all? "Why would an author do this?" one might ask. The answer is simple: to keep the bias of opinion on the subject of nuclear weaponry, showing only the immediate effects of the bomb, and demonstrating that the bomb was created not in the name of war, but in the name of science. Through vivid imagery presented in the forms of analogies, graphic depictions of the bomb tests, and allusions to mythological titans, Fetter-Vorm effectively establishes that the bomb was a scientific endeavour more than an exploration into the social repercussions and controversy that the Trinity tests left in their wake.

Easily one of the most effective instances of Fetter-Vorm's illustrations is found about halfway into the text, showing the first atomic bomb test as it demonstrates the cataclysmic power of science at work. The image in question begins on an almost entirely black page, with

the little water tower housing the first Trinity bomb slowly exploding outward in a frame by frame series of panels. The slow, lumbering blast of the device increases in size with each picture as the titanic wave of fire and plasma gushes out of the once quiet tower. As the eruption engulfs the dark page, the text boxes Fetter-Vorm uses to elaborate on the scientific aspects of how the bomb functions wither away to mere phrases, as if he himself is stunned by what is taking place. Eventually, only the second horizon is in focus, silencing all who would speak in lieu of the destruction (Fetter-Vorm 71-76). While many authors might use other forms of formal writing to show the physical destruction of the Trinity tests through the use of long, wordy sentences with vivid description, Fetter-Vorm boldly does the exact opposite and has an even more dramatic effect on the target audience. By saying nothing at all at the climax of the detonation, Fetter-Vorm establishes the power of science at work as the primary focus of his text, not the social attachments that define the bomb as right or wrong morally. The detonation is drawn on its own slide without any word boxes purposefully, as a way to characterize the bomb as a milestone for the scientists, not a military discovery to be used in the name of killing others.

Another noteworthy example of Fetter-Vorm establishing an effective argument stating that the Trinity test was a scientific conquest more than a militaristic one is found early in the graphic novel, alluding to a monumental story of Greek mythology. On page three of the novel, Fetter-Vorm depicts the man who will become world famous as the great mastermind behind the Trinity test, Julius Oppenheimer, not as a scientist of massive brain power, but more of a philosopher. In a military escort, Oppenheimer tells the story of the grecian titan, Prometheus, and how he was punished by Zeus for all eternity because he stole the secret of fire from the gods, giving it to Man: an action most greeks and their deities deemed brash and dangerous. The

gods did not believe that Man was ready for the knowledge of such a closely guarded secret because they feared Man could not control it if it were to be unleashed (Fetter-Vorm 3). This allusion made to Prometheus by Fetter-Vorm directly parallels how the titan stole the secrets of the gods and selflessly gave them to humanity in the name of progress, to how Oppenheimer unraveled the secrets of science to build the atomic bomb. It is no insignificant fact that the scientists of the Trinity experiments weren't entirely sure what the ramifications of detonating such an object would be once set into motion. Fetter-Vorm does not simply include the Prometheus legend in *Trinity* in order to flex his knowledge of mythology; rather, he does this intentionally in order to indirectly imply both an effective reinforcement to establish the emphasis on the discipline of scientific principles as the key motivation for building the bomb and an ironic similarity between the titans of the past and the creators of today: neither quite knew what the effect of such an "experiment" would result in, but both conducted the experiment anyways in the name of progress, not defiance of an enemy.

Continuing with the theme of science, Fetter-Vorm applies his prowess as both a comic artist and writer to *directly* demonstrate to the audience that his novel was written more as a take on the development and detonation of the first atomic bombs rather than the morality behind the destruction these bombs left in their wake. One repetitive analogy that Fetter-Vorm seems to favor above all others compares the otherwise basic patterns of dominos falling into each other to the manner in which a nuclear reaction takes place. While maintaining the elementary principle behind the dominos, Fetter-Vorm is also able to ingeniously apply the devastating feeling of a premature detonation in a way that many people can relate to: one little domino to represent a stray neutron being hurled into the epicenter of a basketball court, symbolic of a supercritical

mass, filled with dominos stacked precariously near each other (Fetter-Vorm 55-57). The analogies that explain the inner mechanisms of how the bomb functions, such as the constant references to dominos, show Fetter-Vorm's desire to depict the Trinity tests as a scientific matter as often as possible, highlighting how the science behind nuclear weaponry functions. The results of hard work are completely shattered in both cases, but one is clearly more relatable for the audience to understand, something that Fetter-Vorm does deliberately in an effort to help more general audiences understand a difficult concept. By doing this, Fetter-Vorm again pushes his claim for the scientific understanding and curiosity of the atomic bomb and its design.

To reiterate, Fetter-Vorm wrote the graphic novel *Trinity* with one goal in focus: to help an otherwise nuclear-science illiterate audience to better understand the inner workings through the design, manifestation, and explosion of the first atomic bomb. It is clear that he accomplishes this effect in a number of ways that each share the similar characteristic of using the graphic novel style to their advantage. Through allusions to titanic deities, detailed portraits of the processes involved, and analogies that help break down complex concepts, Fetter-Vorm argues that the atomic bomb was not originally birthed as a weapon of war, but rather a milestone of intellectual progression as a modern society. In the end, it is obvious that Fetter-Vorm did not dare debate whether the bomb should have been created, but brought to light an event in history many overlook due to the shockwaves it caused.

Works Cited

Fetter-Vorm, Jonathan. *Trinity: A Graphic History of the First Atomic Bomb*. 1st paperback ed.  
New York: Hill & Wang, 2013.