CHAPTER FIVE

The Noises of War

Joining my futurist friends in the various battles on the side of the Almighty, battles that were crowned by the taking of Casina and Remit ridges, I had ample opportunity to study the noises of war, both those that threatened us close at hand and those in the distance, which filled the Val di Ledro, Val d'Adige, and Valle del Camaras day and night.

One night at Casina Ridge, one of our Alpines, strong, calm, and well acquainted with the mountain, was on guard in a little advance post with an infantryman who was under fire for the first time. The infantryman, aware of his responsibility and a little nervous, kept thinking that he saw the shadows of enemy patrols advancing through the woods among the wet leaves that glittered in the bright moonlight. He prodded the Alpine with his elbow, whispering, “Someone is moving out there!” The Alpine looked and naturally saw nothing. Finally, tired of the repeated alarms, he put his ear to the cliff and listened for a long time. “There is nobody there!” he said. Such calm and certainty issued from his words that the infantryman was completely reassured. The ear had judged with greater certainty than the eye!

In modern warfare, mechanical and metallic, the element of sight is almost zero. The sense, the significance, and the expressiveness of noises, however, are infinite. And since traditional poetry lacks suitable means for rendering the reality and the value of noises, modern war cannot be expressed lyrically without the noise instrumentation of futurist free words. While the most illustrious poets continue to silence modern warfare in their medieval or Greco-Roman compositions, the futurist poets were and are since
the beginning of the Libyan War the only ones who depict in noise with free words the essence of today's battles.

From noise, the different calibers of grenades and shrapnels can be known even before they explode. Noise enables us to discern a marching patrol in deepest darkness, even to judging the number of men that compose it. From the intensity of rifle fire, the number of defenders of a given position can be determined. There is no movement or activity that is not revealed by noise.

But noise, which conquers the blackest gloom and the densest fog, can betray as well as save. How many times have our wonderful soldiers had to take off their noisy hob-nail boots or wrap them with trench sacks so that the noise would not reveal their approach to an enemy trench!

Marvelous and tragic symphony of the noises of war! The strangest and the most powerful noises are gathered together there! A man who comes from a noisy modern city, who knows all the noises of the street, of the railway stations, and of the vastly different factories will still find something up there at the front to amaze him. He will still find noises in which he can feel a new and unexpected emotion.

Artillery, when still out of range, is announced only by a distant murmur, exactly like thunder. But as it draws closer, little by little, the murmur becomes distinct in explosions that maintain the fullness of thunder, and the reports of our own artillery can be distinguished from those of the enemy. But it is only when it comes within range that the artillery reveals completely the epic and impressionistic symphony of its noises. Then, the pounding of the firing acquires a timbre of metallic crashing that is prolonged in the howl of the shell as it rips through the air, losing itself in the distance as it falls. Those coming in, however, are announced by a distant, breathless thump, by a progressively louder howling that takes on a tragic sense of impending manacle, ever greater and closer, until the explosion of the shell itself.

The whistling of the shell in the air varies with the different calibers. The smaller the caliber, the higher and more regular the whistling. With larger calibers, this whistling becomes lower and more irregular in pitch, and to the characteristic noise of violently torn canvas, there are added other, smaller ones, with surges of intensity. With the very largest calibers, there is a noise very little different from that of a train passing nearby. Whatever the caliber of the shell, the whistling that it makes in the air is the same in one
respect: from the moment the shell leaves the cannon until its arrival, it falls in pitch until the explosion. This difference in pitch can equal or even exceed two octaves in a long trajectory. The passage from the highest pitch to the lowest through all the steps of the scale is made enharmonically, that is, it is a true shading from the highest to the lowest pitch.

These enharmonic passages from one pitch to another, which are also found in the whistling of the wind and in the howling of sirens, are completely unknown to present-day orchestras, which can produce only diatonic-chromatic passages—although such enharmonic passages can be quite easily effected with a noise instrument. The characteristics of the shell's whistling in the air are easily explained by the fact that the velocity of the shell, greatest at the beginning, gradually diminishes. Hence, the vibrations of the air—produced by successive impulses of condensation of the air in front of the projectile and consequent rarefaction behind it—follow each other with decreasing frequency. Thus, communicating ever slower vibrations to the air, a gradual lowering of pitch results. The whistling, when the shell is a grenade and hurls itself against any hard body, ends in an indescribable violence of explosion.

The acoustical effects of shrapnels at the moment of explosion are very strange and curious by contrast. As known, shrapnels do not explode on contact but are timed by a fuse that is automatically ignited at the moment of firing and continues to burn during the flight of the shell, thus setting off the explosive while the shrapnel is still some meters from the target. In these shells the whistling is violently interrupted by a furious meow, simultaneous with the explosion itself. No matter how short, this meow produces a rapid enharmonic passage, descending more than an octave.

I remember that soldiers remarked of the first shrapnels that there must have been a cat inside! Probably, the effect is produced by the fuse when it is violently hurled out by the explosion, making a rapid flight through the air that follows the same laws that determine the path of the shell, with the relative acoustical effect.

At first, it seems impossible to explain why the distant explosion of the cannon blast at long range should be heard first, then the whistling of the shell in the air, and finally, the explosion of the grenade or shrapnel—knowing that the speed of sound in air is considerably less than the initial speed of the shell. In other words, the shell should always arrive before the noise of the cannon blast that launched it. But at long ranges, while the speed of sound is