

from:

Wireless Imagination

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THE SYMPHONY OF SIRENS (1923)

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When the morning whistles roar

In the outlying districts

It is not the call of slavery

It is the song of the future.

A. Gastev

Of all the arts, music possesses the greatest power for social organization. The oldest myths show mankind's awareness of this. Orpheus tamed wild beasts with his lyre. Joshua smashed Jericho's stronghold with a mere trumpet. Amphion's flute conjured up majestic cathedrals in Thebes. Pythagoras heard the music of the spheres in the structure of the cosmos and in the very movements of celestial bodies.

In myth and history, music and community singing were the common features of mankind's social life and, in religious and secular rites, its most festive moments. Collective labor (from serfs to soldiers) is inconceivable without songs and music. One would have thought that the high organizational level of factory labor under capitalism would have created a worthy form of musical embodiment. It needed the October Revolution, however, to bring to life the concept of the *Symphony of Sirens*. The capitalist system creates anarchistic tendencies, but fear of workers rallying in solidarity prevented their own music from shaping itself freely. Every morning, a chaotic industrial roar beckoned the people for bondage.

Then the revolution came. Once, at night—an unforgettable night—Red Petersburg sounded with a many-thousand mighty chorus of horns, whistles, and sirens. And in response, thousands of trucks rushed to the outposts throughout the city bristling with bayonets. The Red Guard rushed to encounter Kornilov's vanguards. In this formidable moment, the shrieking chaos had to be tied together with one single will in order to substi-

tute the cries of alarm for the victorious hymn of "The Internationale." The Great October Revolution! Again sirens scream all across Russia and the cannons roar but still there is no unified organizational voice.

Nineteen nineteen. The Volga. Lower Novgorod. We see echelons of Red soldiers leave to oppose Kolchak in Kazan. The entire fleet's whistles sound until the great smoke disappears. This is the first organized attempt. It is difficult—unable to succeed because there are too many sirens—but the contours of "The Internationale" can nevertheless be distinguished.

The year 1922. Baku. Navigation opens. Twenty-six ships of the oil fleet leave for Ashtrakhm. The entire fleet roars, including the docks and shipworks. A grandiose orchestra. It's decided: it will harmoniously play on the Fifth Anniversary of the Revolution. And it did.

For the Sixth Anniversary, we want every town with at least ten boilers to organize a well-deserved "accompaniment" for the revolutionary festivities, and here we present a manual for organizing the "Symphony of Sirens" applicable to various local conditions.

THE STEAM-WHISTLE MACHINE

One of the most important conditions of a successful performance is a preliminary construction of the steam-whistle machine. The machine is mounted either on a conveniently situated factory boiler or on a portable steam engine or a ship steamer. In Baku, it was put on the destroyer *Dostoyny*. Advantages of the mobile machine are evident: it can be moved to one or another part of town at different moments of a holiday and displayed independently outside town.

The steam-whistle machine's equipment is not very complicated: from twenty to fifty whistles are screwed into a larger pipe. The pipe can be any shape, depending on the site of the installation: straight, semi-circular, or with two (to three) bends. It's all the same concerning the sound. It is important to arrange the steam supply in the center since, at the ends, faucets or valves are mounted to draw off water before performing.

Otherwise water will pour through the sirens' valves and the rhythmical accuracy of performance will suffer.

The sirens are tuned by shortening the air column in a supplementary cylinder by any means, either by using a piston or just by hammering a wooden log in and fixing it at a particular depth. The least hydrosopic wood should be selected; otherwise its swelling under the influence of the steam will spoil the accuracy of pitch even after two or three rehearsals. Cylinder-shaped sirens can be retuned (only in the range of one tone, and at most one-third) by putting in washers and removing the bottom from a steam spout. A considerable change of height will spoil a timbre and tone power. If available sirens lack the ability to produce higher tones, one can change that by fixing the steam outlets in the cylinder. Also, one can achieve an overtone sounding (an octave, one fifth, or a double octave higher) through an eccentric mounting. However, such sirens require caution and constant checking—they may "deceive" at the moment of performance due to the slightest change of pressure.

Generally, it's necessary to find a pressure norm and keep it constant through both tuning and performing. One hundred–120 pounds will provide good effect (the furnace should be constantly restoked). The steam-whistle machine's installation should be sufficiently high in place not to deafen the performers with the roar. It's quite natural that after the completion the structure should be tested for stability of steam or water pressure, otherwise the performers take risk of getting burnt. The entire machine must be warmly wrapped so that the siren's valves will avoid frequent steam cooling and water concentration in the valves. The machine's expenses are relatively small and in return it can be utilized for permanent factory use.

The number of tones is minimal (for one melody of "The Internationale" twelve: E, F, Fis, G, Gis, A, H, C, D, E, F, G). With seventeen tones, it already becomes possible to harmonize the melody. More tone pipes untie the musician's hands, allowing him to give his own interpretation, freely harmonize the anthem, and, in general, write a genuine symphony. An increase in tones follows the chromatic scale from two and a half to four (if possible) octaves.

INDIVIDUAL SIRENS

One can manage without a steam-whistle machine only if there is a sufficient number of the mobile boilers (steam engines, ships) and if it's possible to concentrate them in one place (railroad station, pier). But even in this case, a steam-whistle machine helps create the impression of a unified "musical instrument." When there are many immobile sirens (from factories, plants, steam mills, docks, depots, etc.), they can be spaced, developing the feeling of a musical picture. Thus, for example, in Baku (see the following instructions) the picture of alarm and battle was created. Since there was a great distance between placements, performers were signaled by gun shots. Groups played in compact harmony and provided a background for the principal collective and the steam-whistle machine.

It is necessary to take into account sound distances from the signal gun to the group and from the group to the festival square for precise sequences. Too distant groups cannot take part in performing "The Internationale" because the gun, for the time being, plays the role of a "big drum" in the song and cannot be used as a signal. But the mobile steam-whistle machine can be temporarily moved to enforce one or another group if it is returned to its position by the finale.

SIRENS, AUTOMOTIVE TRANSPORT, BELLS, AND AIRPLANES

Fleet and plant sirens make up a specific group of instruments although they do not take part in harmonic evolution of a musical work. They sound off independently at particular episodes, either one at a time or in unison on a signal. Bass horns with rifle and machine gun volleys are the best means of soundwriting and signaling. With "good performers" one can attempt to give them harmonic or melodic assignments though it is hardly applicable in the ordinary tone music structure. "Differential" music of sirens belongs completely to the future, whereas today we are scarcely able to feel specific rules of its harmony and melody.

Automobile transport located close to the place of celebration (in one of the neighboring streets) is valuable mainly for its noise effects. But we can make up a special timbre and tone group provided the transport

has a sufficient variety of tone signals. Engine noise, especially of trucks, as well as that of low flying hydroplanes, creates strong effects of overwhelming impression.

Chimes of alarm, sorrow, of cheerful festivity are used for adequate episodes without harmonic consideration. Or, the entire structure of the symphony can be selected beforehand with regard to available bells. (In Baku, the whole "Internationale" performance was accompanied with melodic chime of fleet bells.)

ARTILLERY

If the sirens are scattered around a large area, it is necessary to have at least one heavy cannon for signaling and to fire an artillery shell (buckshot will not do, since explosion in the air is dangerous and gives a secondary report which may fool the performers). A field gun can pass for the "big drum" effect. Experienced machine gunners (in case they use real ammunition) can not only imitate drumming but can do complicated rhythmical figures. Blank shots and continuous volley fire are for soundwriting moments.

TOWER

To conduct a symphony, a tower must be erected on an elevated spot close to the center of the performance. The simplest construction consists of a few telegraph poles connected with their ends in a "Swedish mast." A platform with a compartment is topped with holes for flagstaffs or a device to hoist them. A tower should be designed with respect to the performers' field of vision set against a clear sky. Brightly colored flags should be chosen (like those used for sea signaling) to be seen from a distance. Performers from the fleet, steam engines, army batteries, machine gunners, and autotransport take their positions near the tower to see the signals precisely. A field telephone must be installed on the tower connected with the battery, festival square, shooting range, and the most important groups. It is useful to have a megaphone and live communication with the steam-whistle machine. The leader should conduct with the right hand while he signals to the artillery

with his left. The battery should be one or two hundred meters closer to the square of celebration than the tower to avoid fire delay.

[Editors' note: Notes to the performance text of "The Internationale" have here been deleted.]

EXPERIENCE AT BAKU

On 6 November, last year, in issues of *Baku's Worker, Labor, and Communist* (published in the Turkish language), the following appeared:

For the 5th Anniversary of the October Revolution. Instructions for "The Symphony of Sirens"

On the morning of the Fifth Anniversary on 7 November, all vessels of Gocasp, Voenflot, and Uzbekcasp, including smaller ships and boats, concentrate near the railroad pier by seven o'clock am. Every vessel will receive written instructions and a group of musicians. Then each will take a designated place by the customs pier area. The destroyer Dostoyny with the steam-whistle machine and small vessels will be anchored ahead opposite the tower.

By **9:00** the entire fleet should be in place. All available shuttle engines, local and armored trains, and repaired steam engines will arrive at the same time. Cadets of the Fourth Armavir courses of the higher party school, students of Azgoconservatory, and all professional musicians should be at the pier no later than **8:30**.

At **10:00** troops, artillery, machine guns, armored cars, and autotransport will take their positions according to the garrison's order. Airplanes and hydroplanes should be ready as well.

At no later than **10:30**, the signalers take their place at regional and rail terminals.

The noon cannon is cancelled.

The fireworks volley will signal Zyk, Bely Gorod, Bibi, Abot, and Baylon to head off toward the road roaring.

The fifth gun signals the 1st and 2nd district of the Black Town.

The tenth gun—sirens of trade offices, Azneft, and docks.

The fifteenth gun—town districts, airplanes take off. Chimes.

The eighteenth gun—sirens of the depot and steamengines left there. (At the same time, the first company of the Armavir courses headed by joint brass orchestra and "Varashavanka" marches off the square toward the piers.)

An alarm reaches its climax and terminates by the twenty-fifth cannon.

Pause.

The triple chord of the sirens "Hurrah" from the piers

Termination signal from the steam-whistle machine.

"The Internationale" (four times).

On the half verse, a joint brass orchestra sounds and the automobile chorus with the "Marseillaise."

At the second repetition, the whole square joins in the singing.

At the end of the fourth verse, cadets and the infantry return from the square where they are met with a "Hurrah."

At the end, there is a universal festive chorus of all sirens and horns for three minutes accompanied by the bells.

Termination signal from the steam-whistle machine.

Ceremonial march. Artillery, fleet, autotransport, and machine guns receive their signals directly from the conductor's tower.

Red and white flag is used for the battery;

blue and yellow for the sirens;

a four-colored flag for machine guns,

and a red flag for solo ships, steam engines, and automobile chorus.

On the battery's signal, "The Internationale" repeats two more times during the final procession.

Stoking of the furnaces is obligatory wherever there is a signaling siren.

All the above is for the leadership and irrevocable execution under the responsibility of the leading establishments: military authorities, Azneft, Gocasp, and related educational institutions. Every performer must have his instructions on him during the celebrations.

The Chairman of TSOK is M. Chagin.

Symphony of Sirens organizer is Mrs. Avraamov.

As seen from the instructions, the symphony symbolized in sound the image of unrest, of ongoing battle, and then the victory of "The Internationale" army.

Any program can be created. Everything depends on the orchestra's power and district's location. "The Internationale" music alone can be a minimum performance. Also a mourning march, if the procession passes the graves of the revolution's martyrs. After all, any musical work can be performed provided it fits with the number of invented tones and artistic means of a town. A medley of revolutionary melodies is possible. For example, in Baku, as can be seen in the Instructions, the combination of "The Internationale" with the "Marseillaise" was played.

If the steam-whistle machine is kept untouched after the performance, it can be used again, even for signaling the beginning and end of the work day. It would be much better to create a machine with a keyboard to be played by only one or two players, but the problem of this construction (with electromagnetic mechanisms) is in its prohibitive cost of thousands of gold rubles.