Mars: City Planner

Cities, Once Compacted Together for Strength, Must Now Scatter for Safety, if War Continues to Haunt the World

By DR. FRANK THONE

RUMORS of war thicken and grow more ominous day by day. Governments move to strengthen alliances, build impregnable steel-and-concrete fortification systems along their frontiers, amass piles of munitions and supplies, and organize the factories in their cities for the rapid production of still more.

But those cities! What shall be done about them? Once the strength of a nation at war, they are now its weakness. Until a few years ago, if you could only keep an army between your enemy and your urban centers of production and industry, the cities would feed and supply your army, and you were safe.

Now, however, the airplane has spoiled all that. Your enemy can fly over your head and strike at the cities in your rear, or at the transport lines between, leaving your army hungry and its guns without powder and shot. The nakedness of our cities, their lack of an effective shield overhead, is the outstanding worry of staff strategists nowadays, especially in Europe, where there are dozens of nationalities with conflicting ambitions and desires crowded into the smallest of the continents, and where even near-bankrupt governments have their fleets of bombers.

Study Types of Protection

How shall our cities be protected against air attack?

To answer that question we must know what the objectives of such attack may be. Generally speaking, air attack on the fighting front is aimed at one of two things: either to destroy materiél—artillery, truck trains, supply and ammunition dumps, etc.—or to kill or disable the soldiers themselves. Similarly, we may expect planes attacking cities to aim either at ruining factories, railway terminals, government buildings and other valuable concentrated targets, or else at human targets, to kill or disable or demoralize the workers.

Many are the schemes proposed for armoring the roofs of important buildings against explosives, for making their walls fireproof against incendiaries, gastight against chemical fumes. One Italian engineer would have us build cities like battleships, with direct frontal resistance to all blows that might be struck. He would have all tall buildings, crowned with thick cupolas or domes; at least the lower floors windowless, to foil splinters and infiltrating gas; projecting high above any possible gas levels tall ventilator pipes. Such a city would look very much like a colony of the enormous termite hills that stand on the South African veldt.

Would Rebuild Paris

More conservative, a French engineer has suggested leveling all the present buildings in the heart of Paris and replacing them with a group of enormous skyscrapers built on a cross-shaped ground plan. The upper floors he would make proof against penetration, against even two-ton bombs, by thick concrete armor, totaling perhaps sixteen feet of reinforced concrete for the top four or five floors. On beams projecting from the lower floors he would hang sheets of flexible chain armor, which would yield to the blast of explosions and yet stop splinters.

An English scheme would be similar to this, but would set all the tall buildings on pillars, leaving empty space beneath, through which explosion blasts, bomb splinters and poison gases could drive with perfect freedom but without material damage.

It is interesting to note that in all three of these schemes the skyscraper plays an essential part. If the roof is to be armored in any way, the smaller its area in proportion to the bulk of the building the better, both for military efficiency and for economy in cost of construction. Therefore a high building, concentrating many floors of industrial, business or governmental activity under one roof is preferred to a low building with the same amount of floor space under a much broader roof. Thus war or the fear of war may speed the adoption of the skyscraper, an American invention, in European cities which have thus far not been over-eager in welcoming this alien type of building.

But if this method of countering the air-raid menace is adopted at all, it will probably be used only for buildings housing vitally important activities. This kind of construction would be too expensive for dwelling purposes. Protection for the masses of the population must be sought by some other device.

Indeed, it may not need to be sought at all, for the natural drift of city populations toward the open land, for their own better living under peacetime conditions, happens to be about as good a thing as they could do if they were moved by military considerations alone. Airplane-borne bombs, whether gas, explosive, or incendiary, represent a high expense in both money and military effort. If you can't kill more than five or six civilians with one, better save it for a more concentrated target.

So the scattering of the civil population, aided by good motor highways and high-speed suburban rail lines, is already providing for their safety as the scattering of chickens foils the swoop of a hawk. It is only the folk who do not take to the suburbs or subsistence-farming areas, whether they be the wealthy who insist on swarming in uptown apartments to be near the bright lights or the tenement-crowded poor of the slums, who are exposing themselves as potential airplane targets.

Following American Lead

In this countryward drift, European cities are again more or less following an American lead. Americans have been glad enough to get away from city crowding, at least for living purposes, for traditionally the American urbanite is a country boy or girl who came to the big town to make good—so that going back to the country on more comfortable terms might be possible. But in European cities the scattering may have to be governmentally stimulated to some extent, because in general tight-fitted dwelling has always been the rule in them.

In any case, however, Mars appears to be playing a double role as a city planner, suggesting closer huddling under one thick shield where close-packed units are really necessary, and recommending the exact opposite, a maximum scattering of the population, wherever crowding can be dispensed with.

In lending his influence to the uncrowding of cities, Mars has ironically reversed his former style as a city planner. For centuries, war and the threat of war operated mainly in one direction —toward close crowding within a protecting wall. From the dawn of history this was so, and it was so even before there was any history, for excavations in Neolithic townsites show that the inhabitants surrounded their settlements with mud walls or palisades.

To be sure, there were a few—a very few—ancient cities that did not have walls. Sparta, in her truculent pride, boasted of her "living walls"—her fierce unconquerable citizen soldiers, who always went to meet their enemies instead of waiting for their enemies to come to them. But there was only one Sparta. An unwalled city in ancient times was as rare as an uncorseted woman in the Gay Nineties.

Thus cities wore their confining girdles of stone all through antiquity and the middle ages. Only the coming of gunpowder, that fierce fiery equalitarian leveler, put a period to the walled city as it ended the armored knight, hitherto secure in his individual personal wall of steel.

Cities indeed continued to wear their walls long after warriors ceased to wear full armor. A wall could after all be built thicker and thicker, since it did not have to be moved. So into fairly modern times the ingenuity of military engineers reared ever more massive and complicated structures of brick and stone against the heavier and heavier cannon. It took the rifled guns, high-pressure powder and high-explosive shells of the late nineteenth century to make a complete end of them.

Wall Became "Ringstrasse"

Thus Mars, city planner, laid the groundwork for the outward movement of city populations by ending one of his most ancient inventions, the confining, corseting city wall, with one of his most recent inventions, really efficient artillery. The sites of the old walls, in most European cities, are now marked by magnificent broad streets, where the wall was dumped into its surrounding ditch. Almost every German city that has an old enough history can boast its fine "Ringstrasse"—the "ring" being the line of the old encircling wall. The wall, that once hedged the burghers in, now helps them to get out.

Mars has shown activity in one other aspect of city planning, an aspect that is perhaps best known and shown in Washington, D. C., the one capital in the world that has known no serious street rioting or fighting and was invaded by a foreign foe but once, and that in the town's very infancy.

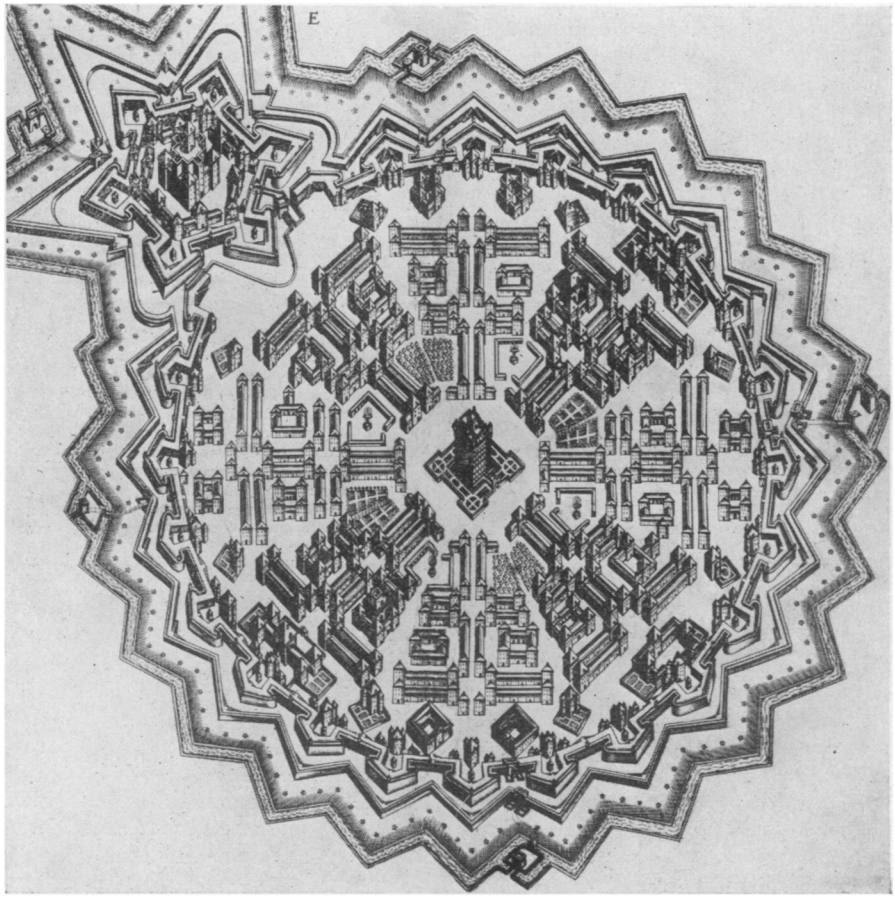
Riot Prevention

When Major L'enfant, French army officer and architect, laid out the basic plan for the city of Washington, the riots and bitter street fighting of the French Revolution were fresh in his mind. He presented a scheme which he felt would enable the constituted authorities to cope with any insurrection in the capital: a webwork of radiating avenues, laid out over the conventional checkerboard of square-blocked streets of an American city. These wheel-spoke avenues connected at little circular parks. It was Major L'enfant's idea that a battery of artillery in each of these little circles would prevent mobs from erecting barriers in the streets, and that troops of cavalry could use these same parks as rallying-points, to sally where danger threatened.

The wheel-spoke street idea, however, was not original with Major L'enfant. Long before his time, almost two centuries before it, in fact, another Frenchman, Jacques Perret, designed what he considered an ideal town. It was surrounded by a massive wall and moat, built on a star-shaped plan, to keep off alien enemies. Within, radiating from the great central plaza where the city hall stood, were the main streets —a perfect wheel pattern. Cannon in the central plaza could hold at bay any insurrectionary mob, or any enemy troops that might break through or over the wall. At one side of the town was a citadel or ruler's castle, to which the garrison could retreat as a last stronghold if they lost everything else.

Wheel-Shaped Karlsruhe

Several of the less ancient cities of Europe show signs of Perret's influence, or at any rate of a scheme similar to his. The fine German town of Karlsruhe, founded in 1715 by the Markgraf Karl Wilhelm of Baden-Durlach,



A CITY PLANNED FOR WAR

The "ideal city" of Louis Perret, described in his book published in 1604, had wheel-spoked streets permitting quick movements of troops to threatened points on the walls, and also making it easy for cannon in the central plaza to snuff out civil insurrection.

when he got tired of an older capital, centers the original main streets in the ruler's castle in a geometrically exact plan. It is not known whether the Markgraf thought he might have to dominate his city with cannon, but the fact remains that its basic plan is quite similar to that drawn up with quite deliberate military intent by Perret over a hundred years before his time, and elaborated upon by the capital of the first republic in the New World a little less than a hundred years later. Truly, the hand of Mars, city planner, is seen in many strange places!

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PSYCHOLOGY

Film and Radio Audiences Puzzle British Psychologist

"WHY do so many educated people tolerate the linking of a lovely face with the accent of the gutter and the language of the garbage-can?"

This question was put by Prof. T. H. Pear, Professor of Psychology and Dean of Science Faculty at Manchester University, in delivering a paper on "Psychological Aspects of the Film and of Radio." Prof. Pear presented his paper to the Psychology Section of the International Congress of Anthropological and Ethnological Sciences in London.

"A film audience—even the most cultivated section of it—is usually tolerant of almost any crudity, cruelty or banality in the cinema," Prof. Pear said. "In ordinary life, however, these same people may be most delicately discriminative and have the highest ideals. If this is not an interesting psychological puzzle and an important sociological fact I should like to hear of one.

"Both cinema and radio represent serious, even gross, disturbances in the life of the average citizen," he continued. "This is one of the reasons that both are so important to the modern psychologist. It is idle to object that people can easily avoid having radios and can keep away from the cinema. In practice, they appear to do neither. They not only listen to radio items of a kind which they do not like, but they go on doing so—and then they write complaining letters to the broadcasting journals."

The true explanations of these facts are not yet known, Prof. Pear believes.

"The announcement that American films are to be 'morally cleaned up' involves a complicated problem for a psychologist," Prof. Pear stated. "So far as one can tell the term immoral seems here to be applied chiefly to subjects connected with sex. It would be helpful to know what the Catholic Church and the other religious sects which will follow in its wake wish to have done about the films depicting personal cruelty, sadism, dishonesty and profiteering on the next war."

Prof. Pear remarked that what the film world terms "montage"—the linking together of different situations—is in effect a defiance of time and space.

"It is interesting to notice," he said, "that every night in many minds a film story, in which montage is used, is built up and presented. It is, of course, the dream. In the dream can be traced fusion of similar situations, connected by some important mental link, fusions of words, dramatizations of abstract themes, pictorial representations of mental conflict and symbolism, where persons are made to stand for complete systems of thought. Perhaps the whole technique of the film producer may be seen in the dream."

Regarding radio, Prof. Pear remarked that the question recently raised by Dr. Hadley Cantrill, of Harvard, "Can reading or study be accomplished effectively when the radio is on?" is of sociological importance. His own experiences and those of others lead him to believe that a radio-background of pleasant, easily grasped, rhythmic but not aggressively rhythmic music is stimulating to easy mental work. He knows even mathematicians who find radio music an assistance.

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MEDICINE

Medicine More Effective When Given Through Skin

CERTAIN medicine is more effective in treating diseases of the blood vessels when induced to enter the body by the aid of an electric current than when given by mouth or by hypodermic injection under the skin, a group of New York physicians has found. These men, who recently demonstrated their method to the American Medical Association, are Drs. Irving S. Wright, A. Wilbur Duryee, Joseph Kovacs, Dean Moffat and Joseph Wiener of the New York Post-Graduate Medical School and Hospital of Columbia University.

The medicine they use has the long name of acetyl-beta-methyl choline hydrochloride. It has been found useful in treating Raynaud's disease and certain other ailments, including chronic arthritis, because it improves the local circulation.

When this medicine or similar ones are given by mouth they have little or no effect. When given by injection under the skin or into the muscles, the action is very transient because the medicine is quickly destroyed by the blood.