

These warnings are not issued by conservative and reactionary minds, but by those who consider that the only progress is that which promotes the health of humanity.

Whole cities are being destroyed to-day without any declaration of war. As Eden has recently remarked, the time is approaching when people will seek refuge like troglodytes in their caves. They now propose to safeguard museums and churches with sand bags which, in addition to sand, will also contain the disillusionments of humanity.

People often speak of hiding art treasures underground and in primitive times we find the same tendency to bury treasures.

Despite all our modern progress it is astonishing that we have to revert to the condition of cave dwellers and the days of buried treasure.

What is likely to happen to civilization? and why be indignant for the crimes of the past when such revolting practices are going on today?

"Danger from the air" there is no doubt about that! "Danger from hearts of stone" there is much in that too. But where is our Lady of Civilization? Why does she keep silence, why does she tolerate all such horror and destruction?

We should not blame the sun spots, for those on man's conscience are much more dangerous.

"Quicker, quicker"—per aspera and astra—to the gateways of Culture."

One of our gifted collaborators writes "Generally speaking I should like to see everything grievous and difficult for humanity which lies ahead take place more rapidly, so that the united spirit can clear the way for greater speed and enable us to progress to the utmost of our forces. There is so much terror around us, so many signs of evil that I am urged to exclaim 'quicker'. More and more the impatient spirit is dissatisfied, although I am not sure whether this is good or not."

His wide outlook allows him to detect all those accumulations which are beginning to stifle mankind and he wishes to accelerate things.

He tells us that "Diseases are reported to be on the increase and dentists are surprised at the number of cases of inflammation. Snow fell in Paris at the end of May, and in Tokio there were hailstones of the size of a two shilling piece. A simple peasant some time ago told a friend of mine 'to go abroad', his instinct told him that it was necessary to get away".

Everywhere to-day there is confusion. And not only dentists but eye, throat and lung specialists speak of the increasing number of inflammatory diseases, and cases of heart trouble and tension are common enough.

## Civilization

By NICHOLAS ROERICH

How proud we are of our culture! In what lofty terms we praise our civilization! With what hopes we look forward into the future!

Meanwhile our reason assures us that Culture can exist provided it is founded on a widening of consciousness; that civilization can flourish provided it be based on certain healthy principles.

A better future must be based upon a renovation of life itself.

In the past, man's efforts seem to have evolved in two opposing directions. On the one hand he has striven to obtain mastery over the wonderful energy known as thought; on the other his efforts have ended in suffocation from poison gas and bombs, or poisoning from the fumes of furnaces and factories.

In some of his recent essays on atmospheric dangers V. Tartarinov has called attention to the many ailments due to negligence on the part of those responsible for the public welfare.

Quite apart from the quality of their foods, which may be good or bad, city dwellers are being systematically poisoned and the danger would seem to come from the air itself.

All day long, whether in the house or in the street we are breathing that deadly gas carbon monoxide, the imperceptible and odorless character of which makes it all the more dangerous. It is the gas which emanates from our stoves, that which is often resorted to by suicides, and when formed in large quantities, it is responsible for mine explosions and the death of colliery men.

There is a whole series of industries—the chemical, metallurgical, glass etc. which suffer in this respect, and the danger exists in all industrial plants where carbon monoxide exceeds the ratio of 1 in 90,000.

Portable stoves, slow combustion stoves and the kerosene gas heaters of our bath rooms all constitute a danger and should be carefully regulated.

In the opinion of Prof. Piavo who has made a special study of this question, the central heating of all houses over 15 years ought to be carefully overhauled to see if any noxious gas is being given off.

Dr. Fesange describes two cases of a mysterious ailment in which the patient complained of headaches, fainting, and asthenia, and in which no treatment proved of any avail.

The doctor then, had an architect called in to repair the central heating, after which the patients quickly recovered.

The closed car, which is all the fashion today, is a real danger. However perfect its construction, it is impossible to prevent a leakage of gas and this is why women who are generally more sensitive than men often complain of dizziness, nausea, and fainting.

The danger however exists out of doors as much as within, since the smoke from the city chimneys mixes with the exhaust gases of the motor traffic, so that when the streets are narrow and the buildings lofty, the result is particularly harmful.

An analysis of the air in the busy quarters of New York shows that carbon monoxide is present in the proportion of 1 part in 10,000 that is, five times more than is admissible from the hygienic standpoint.

And what is the result of such a poisoning? The greatest danger resides in the fact that its evil effects are hard to trace. In the first place, it has a tendency to aggravate all the ailments or diseases from which an organism may suffer, even those which are latent. Those who suffer from dyspepsia begin to vomit. People troubled with insomnia soon find that their case has become chronic, and those afflicted with rheumatism that their pains are on the increase.

One of the most striking symptoms is a swelling of the stomach, which shows that the organism is striving to protect itself by the deposition of fat. The general effect then, is so varied and far reaching that we are apt to overlook the cause which, more often than not, emanates from a badly regulated stove.

Prolonged poisoning by carbon monoxide however, will produce very serious consequences such as general anemia and angina pectoris, cases of which have already been detected in France and Germany.

In December 1930, all Northwest Europe from Finland to the Danube, and from the Netherlands to central France was enveloped in a dense fog formed by the mingling of moist sea air with the cold low lying atmosphere of the Continent. Trains were behind time, radio was held up, and as the visibility did not exceed fifty meters, vessels were tied up in port.

In the happy valley of the Meuse, near to Liege, the situation was tragic. Farmers working in the fields beheld a dense wall of black fog bearing down on them, and many were soon seized with pains in the throat and violent coughing.

Terrified by the sight of this gigantic wall of fog, the people rushed for their houses and many died in violent pain as if they had been burnt alive.

The population, seized with panic, remained at home, the windows barricaded with cushions and mattresses. Medical relief services were organized, oxygen tanks placed in the houses and gas masks distributed.

After the fog had gone, trained specialists, with the help of local magistrates, began their investigations. Similar phenomena had already occurred near Liege in 1911 and 1913 when some of the more aged among the miners and many domestic animals succumbed.

On a cloudless spring day in 1925, in the district of Wipperfurth, in the Rhineland, a dense black fog appeared, temperature suddenly dropped and an odor of sulphur and chlorine filled the air. Scores of people suffered from spasms, and two men, who had been gassed in the war, succumbed. Many birds died and thousands of fish floated to the surface of the rivers.

All sorts of theories arose to account for this "fog asthma". Some considered it to be an inflammation of the lungs although such an epidemic was unknown; others held that it was due to malignant bronchial diseases, brought on by dust from the Sahara; while there were many who imagined it arose from poison gas which had been let loose by malevolence.

Whatever be its density or temperature, fog, in itself, is never likely to cause death, but, in this particular case it had mixed with the poisonous miasmas rising from hundreds of metallurgical and chemical factories in the Meuse valley.

As a rule, such gases are volatile and disperse in the atmosphere. On this occasion however, a sharp fall in temperature caused them to precipitate and the dense fog which prevented the zinc oxide and sulphur anhydride from evaporating proved fatal to those who breathed it. One should remember that sulphur anhydride, mixed with moisture, can precipitate sulphuric acid on the earth.

The discharge of poisonous fumes from the Meuse valley is no worse than that of the London industrial zone, but in London the atmosphere is usually warmer so that the warm currents carry off the poisonous gases.

The case of the Meuse valley is, of course, exceptional, but, unfortunately, the dwellers in all our great cities live in the very worst conditions which, if not so fatal as those of the Meuse valley, are, all the same highly pernicious.

"Danger from the air" is, as a matter of fact, a very real danger. Sunspots are not so much to blame as the spots on man's conscience. The experienced teacher will tell you not to give dangerous playthings to children and, the same may be said of the gases and energies which we handle so irresponsibly.