It becomes ever more essential to expand and refine our feeling for nature as the multitude of men who are exiled from the countryside by force of circumstances increases daily. Pessimists have long feared the ceaseless growth of large cities. Still, they seldom realize how rapidly future populations will be able to move toward preferred centers.

It is true that the colossal Babylons of the past also gathered within their walls hundreds of thousands or even millions of inhabitants. The natural interests of commerce, the despotic centralization of all power, the scrambling for favors, and the pursuit of pleasure made these powerful cities as populous as entire provinces. But factors such as slow transportation, the flooding of a river, bad weather, the delay of a caravan, a raid by an enemy army, or a tribal uprising could result in provisions sometimes being delayed or halted. The great city, in the midst of all its splendors, found itself in constant danger of starvation. Moreover, during periods of relentless war, these enormous capitals always ended up as an arena for an immense slaughter, and sometimes the destruction
was so complete that the ruin of a city meant the end of a people. Even quite recently, we were able to see, through the example of several cities in China, what fate could befall great urban centers under the sway of ancient civilizations. The powerful city of Nanjing was reduced to a heap of ruins, while Wuchang, which about fifteen years ago appeared to be the most populous city in the entire world, lost more than three-fourths of its inhabitants.

While traditional causes of population shifts to large cities still operate, there are now other no less powerful causes that relate to the whole of modern progress. Transportation routes, canals, secondary roads, and railroads radiate in increasing numbers from important centers and surround them with an increasingly dense network of links. Today’s transportation is so smooth that during a single day the railways can deliver five hundred thousand persons to the streets of London or Paris, and in anticipation of a simple holiday, a wedding, a funeral, or the visit of a celebrity, millions have sometimes swelled the fluctuating population of a capital. And provisions can be transported just as easily as travelers. From the surrounding countryside, outlying parts of the country, and all corners of the world, commodities flow by land and sea toward these enormous stomachs that endlessly consume more and more. If it were necessary for the demands of its appetite, London could have more than half of the earth’s produce transported to it in less than a year.

This is certainly an enormous advantage that the large cities of antiquity did not have, yet the revolution in social practices brought about by railroads and other modes of transportation has hardly begun. After all, what is an average of two or three trips per year for each inhabitant of France, especially when a brief excursion of fifteen minutes to the suburbs of Paris or some other large city is considered a trip for the statistics? Each year, the multitude of travelers will doubtless increase in enormous proportions, and all expectations will probably be surpassed, as they have been since the beginning of the century. Thus the amount of travel in
of despair. However, in the end they also experience the gentle influence of their environment, and their most intense bitterness gradually changes into a sort of melancholy that allows them to comprehend, with a sensibility refined by sadness, all that the earth has to offer in grace and beauty. Even more than those who are happy, they know how to appreciate the rustling of leaves, the songs of birds, and the murmur of springs. And if nature has the power to console or to strengthen individuals, what could it do over the course of centuries for whole peoples? Without a doubt, magnificent vistas greatly contribute to the qualities of mountain populations, and it is no mere figure of speech to call the Alps the boulevard of liberty.

London alone is currently as great in a single week as it was during an entire year in all of Great Britain around 1830. Thanks to the railroads, regions are constantly becoming smaller. One can even mathematically calculate the rate at which this shrinking of the land is taking place merely by comparing the speed of locomotives to that of the stagecoaches and rickety carriages that they replaced. For his part, man turns his back on his native soil more and more easily. He becomes a nomad—not like the shepherds of the past, who always followed their usual paths and never failed to return periodically to the same pastures with their flocks, but in a manner much more complete since he indiscriminately heads in one direction or another, wherever his interest or desire impels him. A very small number of these voluntary exiles return to die in their native land. This endlessly growing migration of peoples is now taking place by millions upon millions, and it is precisely toward the most populous human anthills that the great multitude of immigrants makes its way. From an ethnological point of view, the fearsome invasion of Frankish warriors into Roman Gaul was perhaps not as important as the silent migration of street sweepers from Luxembourg and the Palatinate who each year swell the population of Paris.

To get an idea of what the great commercial cities of the world could become if the causes of growth are not sooner or later counterbalanced by opposing factors, one can simply observe the enormous importance of cities in modern colonial societies relative to villages and isolated households. The populations of these regions, released from the bonds of custom, and free to congregate as they please, with no motive except their own will, amass overwhelmingly in the cities. Even in specifically agricultural settlements such as the young American states of the Far West, the regions of La Plata, Queensland in Australia, and the North Island of New Zealand, the urban population surpasses that of the countryside. On average it is at least three times greater and constantly increases in proportion to the development of com-
merce and industry. In settlements such as Victoria and California, where specific factors such as gold mines and great commercial advantages attract multitudes of speculators, the concentration of city dwellers is greater still. If Paris were to France what San Francisco is to California and what Melbourne is to sunny Australia, the “big city” would really live up to its name, having no less than nine to ten million people. Clearly, it is in all these new countries, where civilized man has only recently established himself, that one can see the external expression of the ideal of nineteenth-century society: no obstacle prevented the newcomers from spreading out in small groups over the entire region, yet they preferred to gather in vast cities. The contrast between Hungary or Russia and any modern colony such as California illustrates how great a gap of centuries separates countries whose populations are still distributed as in the Middle Ages from those where the phenomena of social affinity developed by modern civilization can have free play. On the plains of Russia and in the Hungarian pusztia, there are hardly any true cities, but only more or less large villages. The capital cities are administrative centers, artificial creations that the inhabitants could easily do without and that would immediately lose a sizable share of their importance if the government did not maintain a factitious life there at the expense of the rest of the nation. In these countries the working population is composed of farmers, and the cities exist only for office workers and men of leisure. By contrast, in Australia and California the countryside is never more than a suburb, and its inhabitants, shepherds and farmers, have their minds on the city. They are speculators who have temporarily withdrawn from the great commercial center for the sake of their business but who will inevitably return to it. Doubtless, the Russian peasants who are now so firmly rooted in their native soil will sooner or later discover how to free themselves from the fields on which only yesterday they were subjugated. Like the British and the Australians, they will become nomads and make their way to the

into abysses, and keep in his entire physical being that natural balance of forces without which one can perceive the most beautiful settings only through a veil of sadness and melancholy. Modern man must unite in his being all of the virtues of those who have preceded him on earth. Without giving up any of the great privileges that civilization has conferred on him, neither must he lose any of his ancient strength, nor allow himself to be surpassed by any savage in vigor, dexterity, or in knowledge of natural phenomena. In the splendid epoch of the Greek republics, the Hellenes undertook nothing less than to make their children heroes through grace, strength, and courage. In the same way, it is by awakening in the younger generations all of the qualities of manliness and by bringing them back to nature and making them come to grips with it that modern societies can be insured against all decline through the regeneration of the race itself.

Rumford said a long time ago that “one always finds in nature more than one is looking for.” Whether the scholar examines clouds or stones, plants or insects, or whether he goes further and studies the general laws of the world, he continually discovers unexpected wonders everywhere. The artist who seeks out beautiful landscapes encounters a continual feast for the eyes and mind. The industrialist who tries to make use of what the earth produces inevitably sees around him unutilized riches. As for the simple man who is content to love nature for itself, he finds in it his joy, and when he is unhappy, his sorrows are at least mitigated by the sight of the wild countryside. Certainly, outcasts or even those poor déclassés who live like exiles in their own homeland always feel isolated, unknown, and friendless, even in the most charming settings, and they suffer the constant ache

\[4\] Count Rumford (1753–1814), born Benjamin Thompson in Massachusetts, was a scientist, inventor, nutritionist, and social reformer who, because of British sympathies, left for Great Britain in 1776. Rumford is primarily known for his work on the nature of heat, for his improvements to fireplaces, and for playing a large role in founding the Royal Institution of Great Britain in 1800.
great estates, cultivated by slaves’ hands, defaced the land like leprosy. Historians, struck by the astonishing decline of Spain since Charles the Fifth, have tried to explain it in various ways. According to some, the principal cause of that nation’s downfall was the discovery of gold in America; others claim that it was the religious terror organized by the “holy brotherhood” of the Inquisition, the expulsion of the Jews and the Moors, and the bloody autos-da-fé of the heretics. They have also blamed the fall of Spain on the unfair tax of the alcabala and the despotic centralization in the French manner. But did the Spanish passion for cutting down trees due to their fear of birds, “por miedo de los pajaritos,” contribute nothing to this terrible decline? The earth, yellow, rocky, and naked, has taken on a repugnant and fearsome appearance: the soil is impoverished, and the population, which has been decreasing for two centuries, has to an extent lapsed into barbarism. The little birds are avenged.

Therefore, we must now enthusiastically welcome the generous passion that induces so many men (and we declare them to be the best among men) to traverse virgin forests, beaches, and mountain gorges, in short, to visit nature in all regions of the earth that have retained their original beauty. Threatened with intellectual and moral decline, one feels the need to see the great sights of the earth in order to counterbalance at all costs the vulgarity of all the ugliness and mediocrity that narrow minds view as evidence of modern civilization. The direct study of nature and the contemplation of its phenomena must become for all well-rounded men one of the fundamental elements of education. It is also essential for each individual to develop muscular dexterity and strength so that he can enjoy climbing to the peaks of mountains, look fearlessly...
iëge, there are certain villages that all the inhabitants, both men and women, abandon in the winter in order to go to the cities of the plains. Finally, most Frenchmen who are in business or who live off their investments—not counting the multitudes of peasants and workers—are certain to visit Paris and the main cities of France. And it has been a very long time since, in remote provinces, a wayfaring laborer was named after the large city in which he lived. The same social phenomena are occurring in England and Germany. Although in these two countries the excess of births over deaths is much greater than in France, some agricultural areas such as the duchy of Hesse-Cassel and the county of Cambridge are also losing population to the large cities. Even in North America, where the population is increasing at an astonishing rate, a great number of agricultural areas in New England have lost a large proportion of their inhabitants because of a double migration: on the one hand, there is a movement toward the regions of the Far West, and on the other, toward the coastal commercial cities of Portland, Boston, and New York.

However, it is a well-known fact that in the cities the air is full of deadly substances. Although the official statistics on this matter are not always as candid as we would like them to be, it is nonetheless certain that in all countries of Europe and America, the average lifespan among rural populations exceeds that of the city dwellers by several years. Immigrants who leave their native soil for the narrow and foul-smelling streets of a big city could calculate in advance the approximate extent to which they are shortening their lives according to the laws of probability. Not only does the newcomer suffer personally and risk an early death, he also dooms his descendants. It is known that in large cities such as London and Paris the life force is quickly exhausted, and that no bourgeois family living there survives beyond the third or at most the fourth generation. If the individual can resist the deadly effects of his environment, his family will still succumb in the end, and without the continuous migration of country people and foreigners who march happily to how to make it produce the highest yields while at the same time respecting the charm of the landscape, or even adding artfully to its beauty. The marshes and bogs of Flanders, transformed by drainage into extremely fertile countryside; the rocky Crau, changed into a magnificent prairie thanks to irrigation canals; the rocky slopes of the maritime Apennines and Alps, covered from base to summit with the foliage of olive trees; and the reddish peat bogs of Ireland, replaced by forests of larch, cedar, and silver fir—are these not admirable examples of this power by which the farmer exploits the land for his benefit while at the same time rendering it more beautiful?

The question of knowing which of the works of man serves to beautify and which contributes to the degradation of external nature can seem pointless to so-called practical minds; nevertheless, it is a matter of the greatest importance. Humanity’s development is most intimately connected with the nature that surrounds it. A secret harmony exists between the earth and the peoples whom it nourishes, and when reckless societies allow themselves to meddle with that which creates the beauty of their domain, they always end up regretting it. In places where the land has been defaced, where all poetry has disappeared from the countryside, the imagination is extinguished, the mind becomes impoverished, and routine and servility seize the soul, inclining it toward torpor and death. Throughout the history of humanity, foremost among the causes that have vanquished so many successive civilizations is the brutal violence with which most nations have treated the nourishing earth. They cut down forests, caused springs to dry up and rivers to overflow, damaged environments, and encircled cities with foul-smelling marshes. Then, when nature thus desecrated turned hostile toward them, they came to hate it, and, unlike the savage, who could immerse himself in the life of the forest, they increasingly allowed themselves to succumb to the stupefying despotism of priests and kings. “The great estates have ruined Italy,” said Pliny, and it must be added that these
the geologist Marcou\textsuperscript{1} informs us that Niagara Falls has noticeably decreased in flow and lost its beauty since it was diverted to operate factories on its banks, we think sadly of a time not long ago when the “thunderous waters,” unknown to civilized man, tumbled freely over the high cliffs between two walls of rock completely covered with large trees. Similarly, one wonders whether the vast prairies and wild forests, where one can still imagine seeing the noble figures of Chingachgook and Leatherstocking,\textsuperscript{2} could have been succeeded by something other than fields of equal size, all aligned with the points of the compass, in accordance with the land survey, and enclosed uniformly with fences of a standard height. Wild nature is so beautiful. Is it really necessary for man, in seizing it, to proceed with mathematical precision in exploiting each new conquered domain and then mark his possession with vulgar constructions and perfectly straight boundaries? If this continues to occur, the harmonious contrasts that are one of the beauties of the earth will soon give way to a depressing uniformity. Since society is increasing its population by at least ten million per year and has at its disposal through science and industry forces that are growing at a phenomenal rate, it is marching rapidly toward the conquest of the entire surface of the planet. The day is approaching when there will remain no region on any continent that has not been visited by a civilized pioneer, and sooner or later, the effects of human labor will extend to every point on the surface of the earth. Fortunately, a complete alliance of the beautiful and the useful is possible. It is precisely in the countries where industrialized agricultural is most advanced—in England, Lombardy, and certain parts of Switzerland—that those who exploit the soil know

\textsuperscript{1} Jules Marcou (1824–98) was a French geologist who did extensive study of the Jura Mountains and North America. He produced geological maps of the United States, the British provinces of North America, and the world, and co-founded the Museum of Comparative Zoology.

\textsuperscript{2} Characters in The Leatherstocking Tales, a series of historical novels by James Fenimore Cooper.
few hours. Naturally, they happily take advantage of their holidays when the weather is mild and the sky is clear. At such times, every tree in the woods near the big cities shelters a happy family. A considerable proportion of merchants and clerks, especially in England and America, bravely establish their wives and children in the countryside and sentence themselves to traveling twice per day the distance that separates the sales counter from the domestic hearth. Thanks to the speed of transportation, millions of men can lead the double lives of city and country dweller, and each year, the number of persons who thus divide their lives constantly grows. Each morning, hundreds of thousands converge on London to plunge into the whirlwind of business in the big city, and then return each evening to their peaceful homes in the verdant suburbs. The city, the true center of the business world, is losing its residents. By day, it is the most active human beehive; by night, it is a desert.

Unfortunately, this reflux from the cities toward the outskirts does not occur without defacing the countryside. Not only does debris of all sorts clutter the intermediate space between city and field, but even worse, speculators grab up all the charming sites in the vicinity, divide them into rectangular plots, enclose them with monotonous walls, and then build hundreds and thousands of pretentious little houses. To pedestrians wandering along the muddy roads in this would-be countryside, the only nature in evidence is the trimmed shrubs and clumps of flowers glimpsed through the fences. At the seashore, many of the most picturesque cliffs and charming beaches are snatched up either by covetous landlords or by speculators who appreciate the beauties of nature in the spirit of a money changer appraising a gold ingot. In frequently visited mountainous areas, the same mania of appropriation seizes the inhabitants. Landscapes are carved up into squares and sold to the highest bidder. Each natural curiosity, be it rock, grotto, waterfall, or the fissure of a glacier—everything, even the sound of an echo—can become individual property. The entrepreneurs lease waterfalls and enclose them with wooden fences to prevent non-paying travelers from gazing at the turbulent waters. Then, through a deluge of advertising, the light that plays about the scattering droplets and the puffs of wind unfurling curtains of mist are transformed into the resounding jingle of silver.

Since nature is so often desecrated by speculators precisely because of its beauty, it is not surprising that farmers and industrialists, in their own exploitative endeavors, fail to consider whether they contribute to defacing the land. Certainly the “sturdy plowman” cares very little for the charm of the countryside and the harmony of the landscape, so long as the soil produces abundant harvests. Walking around the thickets at random with his ax, he cuts down trees that are in his way and shamefully mutilates others, giving them the appearance of posts or brooms. Vast regions which formerly were beautiful to behold and enjoyable to travel through are completely spoiled, and one actually experiences disgust upon seeing them. Moreover, it often happens that the farmer, as lacking in science as he is in love of nature, errs in his calculations and causes his own ruin through certain changes that he unwittingly introduces into the environment. Similarly, it matters little to the industrialist, operating his mine or factory in the middle of the countryside, whether he blackens the atmosphere with fumes from the coal or contaminates it with foul-smelling vapors. In Western Europe, not to mention England, there are a great many industrial valleys whose thick air is almost unbreathable to outsiders. The houses there are filled with smoke, and even the leaves on the trees are coated with soot. The sun almost always shows its yellowish face through a thick haze. As for the engineer, his bridges and viaducts always look the same, whether on the flattest of plains or in the gorges of the steepest mountains. He is concerned not with making his work harmonious with the landscape, but solely with balancing the thrust and resistance of his materials.

Certainly, man must take possession of the earth’s surface and know how to utilize its forces. However, one cannot help lamenting the brutality with which this process is carried out. And so when