Presentation

Continuing our voyage until arriving at the island of Panay, where all the men disembarked. We found that the island was one of the best and most bountiful of all those in this archipelago [the Philippines], [though] devastated and dis[consola]te (?) which was a great shame and pity […]. And the disease of which most of them died was hunger, and the cause of that famine and mortality was the locust, which had swarmed there two years before [and] destroyed the rice and millet fields […]. The possible cause and their vast destruction was [illegible] everywhere, and still is today, the entry of locusts and the moths that are the Spaniards in these lands; who destroy, hoard and ravage all things.

—*Archivo General de Indias*, *Filipinas* 84, N. 2, letter from Friar Francisco de Ortega O.S.A. to the Viceroy of New Spain (1572)

After those comets appeared in the year -618 around the month of November, in addition to the aforementioned diseases there was a huge plague of locusts that wreaked havoc in some places, though not as great as their numbers threatened […]. And this terrible plague has continued up to this year of -621; great is the surprise that it has not yet ended, as since the very first day Our Lord provided such immense [flocks] of sparrowhawks or buzzards, as have seldom been seen before, which followed or pursued it […], such great numbers descended upon them as theirs upon us […], and as they were so many and soared so high they manifested themselves from a great distance though they could not yet be seen, but we knew them by their persecutors.

—Domingo Lázaro de Arregui, *Descripción de la Nueva Galicia,* Seville, 1946 [1621], p. 30

La sortie de L'usine Lumière à Lyon [1895]: http://www.youtube.com/watch?v=HI63PUXnVMw

We have just learned that there are now more than seven billion human beings (and likely just as many dogs, cats and cattle) on this blue orange we call Earth. Great news! Huge worry!

This exponential multiplication of *homo sapiens* is recent, as it dates back only some 6,000 years; its origins rooted in two revolutions or, better, mutations. The first was the Neolithic; when mankind's gregarious instinct was strengthened, and the phenomenon of storage emerged, together with its partner, surplus, thus engendering speculation. With time, they gave rise to junk food and the many other afflictions now manifested in our dentition and other skeletal parts. Also since then the landscape, flora and fauna have evolved similarly, been domesticated, become impoverished.

The invasion of the Earth by this new species, *homo agricola* (who progressively displaced *homo rusticus*, the hunter-gatherer) was slow and uneven; often, for a whole series of absurdities, its different subspecies waged war against one another, destroyed each other, and infected others with their germs. Thus, in the year 1500 A.D. there were only some six hundred million humans, and *homo europeanus* was, directly or indirectly, on the verge of exterminating *homo americanus*.

That process accelerated in the 17th century, as a new mutation emerged in some fields in Holland, like another green revolution. It prospered under the auspices of productivity, profitability, modernity, and the entrepreneurial spirit, opening the way to the grand mutation: the Industrial Revolution of the 18th-19th centuries that has transformed *homos* into the eternal mutants we are today: about to exchange our two legs for four wheels, with children who have increased both their height and waistline by 20 centimeters in just a few decades, and having abandoned the green meadows of the countryside for the black asphalt of cities.

Our gregarious instinct has been accentuated almost to the point of hallucination: just walk the streets of our cities at the end of the day, or our beaches at holiday time. Even *Relaciones* has come under the spell of this renewing modernity: for the first time it includes an epigraph with an Internet reference, a link to the 1895 film that established a new art: the exit –especially of women workers– from the Lumière brothers' factory, the inventors of the cinematograph, in

Lyon. It is the first moving picture of such a mobilization of bodies, one that captures the spirit of the masses where each individual feels alone amidst the multitude: no looks are exchanged… just a crowd of unbonded atoms. Only one gesture of humanity is seen among the *homos* there, as one woman stops at mid-street to wait for another and take her hand. Standardization, *Taylorization*, is knocking at the door in 1895, one more mutation within the Grand Mutation; only 47 touching, teaching, seconds… even the dogs lost their bearings in the wake of that sea of *homos*, and only the bicycles –novel mechanical centaurs– are capable of opening a breach through the compact mass.

In the current phase of this mutation (2012) we are as happy as can be –so we are told– or maybe even moreso, in this consumer society. We have multiplied dramatically over the face of the earth, we consume, our seven billion jaws waste the planet's fossil riches, our toxic exhalations darken the skies, and because of us desertification spreads apace. We poison land and water with our garbage, organic or chemical. We are the most terrible scourge in the universe. *Homo* is a locust plague on *homo* himself.

Some will label me a misanthropist or, worse still, pessimist. But they fail to observe that the cover of our Thematic Section shows a gay, 17th-century French grasshopper, *sauterelle* we read in the caption, identical to those one finds innocently hopping through our gardens. And like them the women workers leaving the Lumière factory, many quite young, wearing lovely hats and coquettish outfits that individually inspire great empathy. In truth, it is only *en masse* that *homo* becomes horrible, devastating; just as a similar brutal mutation of gregariousness transforms the innocent grasshopper into the dreaded locust. It is all circumstance, guided by deeper impulses: in 1937, an even more pessimistic philosopher wrote, "Does the structure of life in our time inevitably impede mankind from living as persons?"; he imagined humanity on the model of a termite nest.[1]

[1] José Ortega y Gasset, *La rebelión de las masas*, "Prólogo para franceses"; though he eventually discarded this extreme vision, but only in favor of the "enormous voracity of the Low Empire" that would be the endpoint: *i.e.*, chaos, egoism and destruction.

Well, we have jumped from one species to the other; precisely the invitation proffered by Luis Arrioja, the coordinator of the section entitled, "On Locusts and other Scourges"; a broad topic to be sure, and one quite well-known, but impossible to over-analyze. Suffice to read chronicles and newspapers, even more recent ones, to demonstrate the permanence and severity of this problem. Without doubt, the grasshopper antecedes *homo* in time, but it was only with the advent of *homo agricolus* that it became the locust; *i.e.*, a "natural catastrophe" (or, perhaps more accurately, a "human" catastrophe?). But the real question is to what extent man himself has contributed to the spread of the plague by multiplying crops, broadening open spaces, deforesting, and creating the ample grasslands that so greatly favor its alimentation and reproduction?; not to mention other disequilibriums that have diminished the numbers of potential allies to combat it. In this sense we have worked against divine knowledge, according to the excerpt from Lázaro de Arregui cited in the epigraph. Where are those "huge flocks of sparrowhawks" and other birds that might decimate those clouds of insects? Clearly, our preference is for another kind of remedy, one chemical in nature, surely more radical, but one that impacts all species, including *homo* himself, perhaps not quite as *sapiens* as he believes himself to be.

But despite those measures the struggle has advanced slowly. In spite of the intervention of the state, as late as the first half of the 20th century, and beyond, Morocco and Algeria were victimized by repeated calamities of this kind. And responses have always fallen short: the colonizers opined that the problem was inherent in the sloth of colonized peoples, and that little could be done. Meanwhile, the latter strove to defend themselves with the miserable means at their disposal; poor, indeed, but not as inefficient as one might think, as the reader shall see in some of the cases examined here. Eventually, through trial and error and observation, the locust became better understood. Spain, located within the locust's Mediterranean circle, elaborated an effective scientific approach in the 18th century, as Guillermo Bowles expounds in his essay in this issue, "The Natural History of the Locust in Spain, and the Means of Destroying It" (*Historia Natural de la langosta de España, y modo de destruirla*), first

published in 1775, translated into French, and reissued by popular demand in 1825. It is a brief, synthetic text based on the author's own studies and observations by peasants. Its central thesis is quite simple: the grasshopper remains inoffensive as long as there exists a huge imbalance between males and females, with the former outnumbering the latter by as much as fifty-fold. But in some years an imbalance occurs, the number of females increases as, logically, does the quantity of eggs, triggering the aforementioned gregarious mutation. Not surprisingly, a lengthy section examines the sexuality of the locust: "before explaining the locust's terrible fecundity, I first describe its mating with the frankness of the naturalist, but the pure intentions of a true philosopher". In effect, the mating of the locust is as dramatic and merciless as that of the species *homo*, another facet of resemblance.[2] Highly suggestive, due to its parallelism, is the letter written in August 1708 –during the War of Succession– by the Duke of Gandía's foreman: *ex abrupto* he passes from the very real calamity of the locust plague to the imminent arrival of the army. Of course, comparisons of clouds of insects to human armies have existed since at least the time of Homer: "as if driven by fire the locusts hover in mid-air before fleeing to the river, where they cower in the water; just as before Achilles the course of the Xanthos, with its deep eddies, resonated with the confused din of horses and men".[3] On the conquerors' comparison of locusts to moths, we refer the reader to the letter by the Augustinian Francisco de Ortega, also in the epigraph. Finally, like all species, human or otherwise, the locust has regional identities; thus, *Calliptamus Italicus* is not to be confused the *Dociostarus Moroccanus Thunberg*, much less with *Schistocerca piceifrons piceifrons* or *americana*.

This is to say that from continent to continent, and from one epoch to another, the calamity of the locust has an ample repertoire of well-documented villainies, though here we limit ourselves to the

[2] Page 4 of the 1825 edition. At some point, he is described as a "lascivious animal"; see the article by Luis Arrioja, as well as those by Armando Alberola and Milagros León. Also mentioned are the works of Ignacio de Asso, from Aragon during the Enlightenment.

[3] Archivo Histórico Nacional (Madrid), *Nobleza* Section, Osuna, CT. 142, D. 60. Homer, *The Iliad*, song XXI.

Iberian Peninsula and Mexico. For the former, we may go back as far as the years 578-583 in the region of Cartagena, while for Mesoamerica, the "fame" of this inoffensive insect appears from the earliest documents –for example, the *Sigüenza* Codex– where hills abundantly covered with grasshoppers (called *chapultepecs*) are a common motif. Alejandra García also mentions passages in the Mayan prophecies that speak of *saak'*, an arthropod. Perhaps this explains people's familiarity with the insect in those regions, which is reflected in several of the articles. But such contact in no way mitigates the fear; as Milagros León describes, for ancient rural populations the locust announced the apocalyptic triad of famine, war and plague.

As Armando Alberola points out, all these factors make this an especially intriguing theme; as it blends geography, entomology, economics, popular culture, and religious practice. He reminds us that ideal environmental conditions prevailed in southern and eastern Spain (Extramadura, Aragon): land with no steep slopes, barren terrains, hot climate, narrow temperature range, and scarce, irregular rains. Though treatises on plagues of locusts like that of Juan de Quiñones (1620, see Milagros León) exist from the 16th and 17th centuries, it was not until the 18th that a formal policy of prevention was adopted, thanks to a better understanding of the insect (Bowles, Asso) and the Enlightenment State's willingness to intervene (the *Instrucción* by the Council of Castile, 1723 and 1755), one essential aspect of which consisted in ascertaining the locust's stages of development. Intervention by the authorities began with the formation of local "locust committees" and ended at the Council of Castile itself (see the article by Cayetano Mas Galvan). But simple observations –even ancient ones– were also of great utility: the *Instrucción* mentions an alliance that included man and other enemies of the locusts, such as hogs, hens and oxen. But it was the simple, age-old net (*buitrón*) that proved to be the most efficacious instrument in the war against the plague, especially when locusts in nymph form were just beginning to take wing.

The importance of the 18th century –when locust plagues returned with renewed intensity– may well be related to the climatic changes that ended the "Minor Ice Age" that impacted the planet

from the 16th to 19th centuries. This is certainly a point to be pondered through transcontinental comparative studies. Indeed, we present a first attempt at such an approach in our Thematic Section. While few decades in Spain were free of such scourges, the 1754-1756 period that followed several years of drought was particularly dramatic; even the reliquiae of Saint Gregory of Ostia that were carried from one desolate region to the next ravaged province proved incapable of providing protection from the dreaded *locusta*. And similar scenarios occurred in 1782-1785 and 1790-1791. Armando Alberola, Cayetano Mas and Milagros León, as well, guide us through those episodes.

The extensive catastrophe that took place at mid-century is analyzed by Mas for the Levant region, and by León for Andalucia. In the case of Orihuela and Murcia, after the scarce rains of 1755 the locusts remained from July 1756 –in adult form borne from the west in swarms– to the summer of 1758, infesting fields but, above all, water. Because they deposited eggs there, in 1757 native swarms appeared in the area. The damage they wrought was significant, though, as in any epidemic, spread unevenly over different towns: six localities with 12,000 hectares (29,650 acres) of cropland were affected most severely, not to mention the resulting nervous disorders. In all likelihood, the climate was also partially responsible; though we should not lose sight of the fact that those plagues forced already deeply indebted local governments (*ayuntamientos*) to absorb huge expenditures.

According to the *Instrucción* of 1755, the most efficient extirpation method consisted in extracting and destroying the locusts' pods (*canutos*), but that entailed enormous costs that had to be covered mainly by residents of the affected towns according to the amount of land each one possessed, a condnition that made collecting funds difficult and, as in the case of Murcia, could result in bankruptcy. Alejandra García Quintanilla (see article below) was not surprised to learn that the clergy and nobles were reluctant to contribute, and Milagros León informs us that the same was true in the Antequera of 1620. But it is important to note that those thousands of paid workdays came as a relief to the poor, who were exempt from paying the

tax, as had been the case since at least the 17th century. Insidiously, other battles were hidden behind the war on the locust: the open pasturelands propitiated the spread of plagues, but restricting them would have endangered the livestock industry, a particularly sensitive issue in modern Spain. In those circumstances, there was nothing else to do when besieged by swarms of locusts than "beg for Divine Intervention, through public demonstrations conducive [to obtaining it]" (*ayuntamiento* of Murcia).

Milagros León describes the effects of such calamities on "the bountiful spatial and environmental conditions" of her native Antequera: whose natural richness (sumptuous was the term used in modern times) attracted everything from sparrows to locusts. The spring-summer seasons of 1585, 1619-1620, 1657 and 1756-1757 left us significant documental sources that recount the establishment of local locust committees and huge monetary outlays: in January 1757, the city was duly visited by St. Gregory of Ostia's head, but with no favorable results. This shows how people resorted to the same measures as elsewhere: the plow, then the net, and finally different modes of prayer directed to a wide range of potential protectors. Here, the activity of the clergy –especially from the Capuchin order, well-known for its exorcisms– became primordial, as the struggle against the inoffensive (?) grasshopper turned into a confrontation with Evil. In return, of course, copious alms fell into their hands. But the ecclesiasts did only the easy work; the hard labor of plowing, pursuing, netting and burning was left to peasants, and impeded them from carrying out more vital activities.

During the 18th century, and a good part of the 19th, in Spain no fundamental advances occurred in knowledge of the locust, or in the war against it. Dare we hope to find a distinct, more evolved, reality on the other side of the Atlantic? As in the Spanish case, the three articles presented herein deal with regions that propitiated the emergence of plagues; once again due to the existence of extensive wastelands, warm climates, more-or-less clearly-defined dry seasons –complicated by hurricanes– and permeable soils. Referring to Yucatán and Oaxaca, María Isabel Campos mentions that the soil is "[pure] limestone that burns the roots of plants". Similar conditions prevailed over much of

Mexico's geography, at least in tropical areas (see the epigraph on Nueva Galicia). Is it mere coincidence that the "Mexican" plague of 1618 (in Nueva Galicia and Yucatán) coincided with that of 1619-1620 in Antequera, Spain? Could we be dealing with the same climatic episode? Without question, the Spanish plague of 1755-1758 corresponded to the one in Yucatán in 1755-1756.

Campos' attempts to relate natural phenomena –hurricanes– to biological ones –*i.e.*, locusts– remains an open discussion, but when we recall that in the Spanish world the Devil was thought to follow close behind the swarms of locusts it is interesting to learn that in Yucatán the forces of Good and Evil were embodied in the forces that struggle during storms: wind, rain, destruction, preservation and, afterwards, drought.

Shocked by the fury of tropical storms, the Spaniards were equally taken aback when they found locusts in America, and soon transferred their legislation in this matter, together with their battle tactics and weapons, including magic and religion, to the New World; though some variants were introduced: for example, the presence of certain tropical tubers, trees and fruits that were invulnerable to the voracity of the insect contributed to mitigating its effects on the indigenous population. But there were also adverse circumstances: in the months from March to June cornfields there (with beans and squash) were in full bloom, a cycle that often coincided with outbreaks of locusts. Of course, Campos' hypothesis that relates the collapse of the tributary population in Yucatán to hurricanes and plagues of locusts –plus epidemics– is intriguing and, without doubt, provides part of the explanation. But we dare not push it too far, as it presupposes that the periods just before and after those two catastrophes were not as devastating, a notion that is, at best, doubtful. Nonetheless, her Table 4 is indispensable to our understanding of "the world that the Mayans lost": as at least once in each decade the people there suffered famine, locusts, hurricanes or epidemics, or even all four of those horsemen of the apocalypse in the same year! Golden Age? How about back to the Iron Age!

According to Luis Arrioja, the plague of locusts emerged in the southern area of the *Capitanía General* of Guatemala in August 1801

after a year of drought interrupted by a few intense rainstorms. Rapidly it spread to the Soconusco region, devouring cornfields along the way. Aware of the scourge, the *Intendente* of Oaxaca began to make preparations. By November the prevailing winds had carried swarms of locusts to Tehuantepec and Teotitlán del Valle, but that warning met only a weak response and the insects were able to nest in that *Intendencia*. Thus, the plague re-emerged in July 1802 and began to spread to Villa Alta, Cuatro Villas and Zimatlán. In July 1803, it reached the limits of Puebla and Tehuantepec with swarms that covered extensions greater than 150 square kilometers (60 mi^2).

Logically, responses were based on the *Instrucción* of 1755 –including, significantly, the formation of "Locust Committees"– but results were even less effective than on the Peninsula; likely due to the fact that conditions in the New World were more adverse than in Spain: for example, broad, largely inaccessible, wastelands, and the intense poverty of peasant communities. To make matters worse, the agrarian economy was severely damaged by a twofold blow: first, the destruction wreaked by the plagues; and, second, the costs of combating it. Moreover, other measures implemented, such as lighting bonfires and setting off large firecrackers (*cohetes*), only had the effect of spooking the locusts towards other towns, thus intensifying tensions in rural areas. In fact, what brought the natural disaster of 1804-1805 to an end was Mother Nature herself, in the form of an intense cold snap.

Among other conclusions that can be drawn from this episode, it is clear that this calamity respected no borders, especially not political ones. This became significant after 1821 and the emergence of national states, as the case of the Mexican state of Oaxaca in 1851-1853 shows. When besieged simultaneously by an epidemic of *Cólera morbus* from the north, and a locust invasion from Guatemala, the resulting terror called for a scapegoat, so both Guatemala and the Indian communities were denounced as "useless", reflecting how Mexican liberalism was beginning to forge its working instruments. But a new epoch was being announced, that of modernity: Benito Juárez told the recently-founded National School of Agriculture (1856) to prepare a report. Though late in the day, that docu-

ment did propose some interesting innovations, such as using natural repellents and other insects that preyed on locusts. But, once again, it was nature (the intense rains of 1857-1858) that resolved the disaster. In all of this one notes the many phenomena that recurred over incredibly large geographical extensions; indeed, almost on a planetary scale.

But thanks to historians and their changing lenses it is possible to avoid simply repeating (indeed, stuttering), the same refrain. Alejandra Garcia's essay focuses more on the social tensions that arose from the disasters caused by those insects in Yucatán during the pre-henequen era of 1882-1883. At the beginning we find, once more, the succession of drought and intense rains during the "dog days" of 1882, with the consequent hatching of locust larvae in September; all framed by the climatic phenomena of *El Niño* and the explosion of the Krakatoa volcano in 1883 that blackened skies almost everywhere. Indeed, 1883 was the worst year of the calamity in Yucatán and shows, again, how difficult it was to correct longstanding problems and overcome the egoisms that seemed to accompany those voracious insects, a 10 km^2 (4 mi^2) swarm of which can devour over 2,000 tons of vegetation in a day, enough to feed hundreds of starving families.

But that reality failed to move the sympathies of some, such as the Escalantes, a large-scale henequen farming and exporting clan. When the community of Opichén was battling a plague with tremendous grit and discipline, they were concerned only about the lands they held in that municipality. In fact, in 1883, together with other merchants and landlords, the Escalante family opposed levying a tax that would have made it possible to combat the plague more effectively and mitigate some of its most dire consequences; all the while supporting a measure that would apply a tariff on corn importers. But as in every episode in Spain and Mexico, preventive measures were almost completely ignored, the same tools were used, and despair soon withered people's resolve. Apparently, only the recently-planted henequen fields were capable of withstanding the plague and were thus able to absorb the poor, starving people who were forced to accede to those grand plantations once their corn-

fields had been destroyed. Was *saak'* another instrument of modernization, an ally of those entrepreneurs?

Of course, the locust brought famine and, as we saw above, other Apocalyptic horsemen. Those who know the history of the Royalist General José de la Cruz will not be surprised to learn that we caricaturized him riding a locust while spreading extortion and repression everywhere he went (the dubious reader need only ask the opinion of the Canons of Guadalajara and Valladolid!). The document introduced by Rafael Diego adds some nuances and circumstances to this interesting figure ("frenetic reaction" writes the commentator, "seething" says the document). To judge the whole set one need only peruse the fourteen queries that this historian asks of the text as he attempts to extrapolate it from a simple regional milieu and bestow upon it Imperial dimensions. In 1817, the king named an *ad hoc* committee to resolve Cruz' case and then apply that resolution throughout his possessions, though this took place precisely when the Monarchy was on its last legs.

To round out this issue of our journal, we might add a fifteenth question: namely, To what extent did the conflict between brigadier and *Audiencia* fail to take into account the degree of militarization that had been taking place within Spain's administration –since the War of Succession– and in Spanish America –since the Seven Years' War of 1755-1762– and that would later enjoy such success on both sides of the Atlantic in the early 19th century?; suffice to recall an Agustín Iturbide and a Baldomero Espartero (1793-1879).

Though Cruz epitomized to some extent the "barbarian *caudillos*" that would later destroy Bolivia, the entire set of circumstances must be assessed in light of the name by which that period is known: *i.e.*, the "absolutist sexennium" of 1814-1820; a label that seems accurate, especially because it invites comparisons, in this case with the absolutist monarchies of the 17th century. But today it also suggests the negotiated character of the State in modern Europe (16th-to-18th centuries). The monarch's reaction to this civil-military confrontation in 1817 centered, it seems, on a search for mediators and not on iron-fisted policies (implemented earlier) as is sometimes adduced. Absolutism, of course, but tempered by pragmatism –"conciliation"

we read in the text– based on collegiality. Just like always? But we do not wish to appear overly optimistic, and must never lose sight of the fact that "the moderating power", a product of liberal thought (Benjamín Constant), was born at that time and applied in the –clearly conservative– Brazilian Constitution of 1824; realities that complicate our efforts at classification.

If we follow Phil Weigand, then the attractive *Primavera* woodlands are just as fearsome for the people of Guadalajara as the irascible Brigadier José de la Cruz, though those hills are now also suffering the onslaughts of capital. But just like the diaphanous grasshopper, behind its peaceful appearance there lies an implacable monster: this one some 91 km^2 (35 mi^2) in size: a dangerous, barely dormant, sunken volcano. Like many other phenomena of this kind, it seems attractive to the genus *homo* with its water, vegetation, fertile fields and obsidian deposits. And, indeed, on its skirts there emerged one of the first complex cultures of western Mexico and, much later, the city of Guadalajara, nicknamed the "Pearl of western Mexico". To understand the nature and risks of sunken volcanoes suffice to recall that the eruption of Krakatoa in 1883 that so severely altered the Earth's climate was of this type. The author masterfully explains the mechanism of that enormous time bomb. Once again, the concept of space, or territory, comes to the fore as we perceive this imminent cataclysm that brings to mind much of the geography of North America and the Pacific region; might there be a parallel here to the 'lava flows' of locusts that covered the tropical reaches of entire continents? But this topic remits us to other concerns mentioned at the outset: the gigantic Coli volcano is also under attack from man and his allies; in this case, agave plants and sugarcane, its rich soil severely laterized, its archaeological remains destroyed.

This article gives us the opportunity, there among the spring flowers of Coli, to bid an emotional farewell to a scholar who was one of the most outstanding and loyal collaborators to this journal. Fare thee well, Phil Weigand.

From the gentle, sloping hillsides of Coli, that dormant colossus, passing through hurricanes, swarms of locusts, apocalyptic horsemen galloping over the Earth, to the distant Krakatoa, we have men-

tioned several of the emerging perspectives in the environmental sciences, ones rich and varied.

But what is most impressive, if we must focus on just one theme –the locust– is the manifestation of a complex system that associates land, climate, vegetation, evolutionary phases, knowledge transformed by empirical work, modes of material and spiritual combat, and social, economic –even political– consequences, over long time spans and transcontinental geographies. But even more astounding is the system's almost intangible character, despite the vagaries of time and distance. The same could be said of that other scourge of the Earth, *homo*: through war and revolution, religion and political ideology, catastrophe and bonanza, he has preserved his aggressiveness, the same rituals, the same gestures, the same expansionist vision for the planet, only concealed under different disguises and masks.

For the locusts of the 20th century, pesticides marked a watershed; while the decade of 1940, with its massacres, disasters and atomic bombs, constituted a decisive tear for *homo*, one that he is now attempting to restitch, but with great difficulty, amidst his own swarm of seven billion heads, stomachs, and genitals that generate 21,000,000,000 concerns… and many more potential research projects than journals in which to publish them!