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**Ecology and Violence**

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**Knowledge and Life**

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**From**

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*KNOWLEDGE AND LIFE*

To clarify these oppositions between the scholarly and the non-scholarly worlds, a contrast is often drawn between embodied, tacit knowledge and formal knowledge. The chapters of this book have explored a more complex tension, connecting two modes of knowledge.

The first relates to what I have termed ways of living. From gestures to language, from social relationships to ways of seeing things, this knowledge encompasses all the processes through which the world is embedded in a way of being. It makes everything an integral part of the human experience while at the same time depending entirely on every individual’s lived experience. In this situated knowledge, a particular plant is not known or understood in the same way by, say, a man or a woman, a Spanish or a Native American person, a merchant or a doctor, or indeed by a single individual at two different moments in their life.

The second is the object of knowledge. Within this paradigm, the plant is seen as external to human existence, reduced to a classification, illustrated using an abstract model and measured on the basis of an artificial criterion. This detached view reduces each plant to a variety of discrete objects, e.g., its root, its therapeutic effects or its various uses. Thus isolated and abstracted from lived experience, these objects may be communicated beyond situated knowledge.

In the one case, people become to a certain extent what they know; in the other, they only know the things from which they distance themselves. Lived knowledge as opposed to the object of knowledge, internalisation as opposed to externalisation, a unified approach as opposed to a sectional approach, moving and situated knowledge as opposed to the fixing of conventions. The interplay of these oppositions does not set empirical knowledge against theoretical knowledge or perception against conception, but rather it differentiates two complementary modes of knowledge. In reality, each form of knowledge is a mix of the two modes. Methods of isolating objects are mutually dependent on ways of living, and language is as much a way of being a part of the world as it is of detaching from it.

Throughout this book, scientific practices have thus been studied as ways of living. Monardes, for instance, is a doctor capable of identifying American plants at a mere glance, because they have become a part of him, inseparable from the life he lives in the port of Seville and the power relationships in which he is involved. However, Monardes was also a merchant who separated out plants, classified merchandise and made distinctions within each to make them consistent with the Galenist discourse on the humours. Conversely, the Nahuatl taxonomy, or the identification of a curse by a healer, springs from an objectification of the world.

In everyday life, it is as though the ways of apprehending objects fitted exactly with ways of living. The question is how this relationship becomes reversed, how the object-based worldview comes to dominate that of lived experience. For daily health practices, as well as the practices of investigation or experimentation, this reversal seems to occur when something new appears: when the unknown must be confronted or one’s approach to things must be reconsidered.

*THE DISCIPLINE OF INNOVATION*

When science departs on a quest for the new, unsure of itself and the world which it is studying, it sets out protocols and invents a discipline in which scholars’ ways of living are governed by their objects of interest. Thus the botanist is a plant specialist and, gradually, missionaries and travellers become specialists in Native Americans and peasant ways of living.

The prominence which this object-based world view acquires is illustrated by the preferential importance accorded to the visual sense, which is above all that of externalisation, production of proof and conventions. However, the dominance of this object-based perspective never entirely eclipses that of lived experience; this tension constantly leads back to scientific practice itself, and to the relationship with experimentation in particular.

To understand the new, scholars need to undergo a process of transformation. For instance, in the sixteenth century, the Franciscan monk Alonso de Molina learned the Nahuatl language, integrating it into his own lived experience, in order to understand it. However, he also set down its principles and rules in order to be able to communicate them to other missionaries. On the one hand, objectification takes from things part of their substance; on the other, it adds greater reality to them.

The tension inherent in each experience resides in these two transformations, which scholars are keen to limit by all means. They first need to distance themselves from the risk of metamorphosis, which they could delegate, as they did in the hospitals of Rome, Paris and Mexico, to supposedly inferior beings (e.g., animals or guinea pigs). Herein lies some ambiguity in the term experiment/experience[[1]](#footnote-1) which can refer to a moment of radical transformation or, conversely, a mechanism whose outcome does not affect the experimenter. However, this detachment is more fundamentally aimed at ensuring that the scholar, this being of flesh and blood, should not interfere with the production of knowledge. The traveller or intermediary shall thus handle instructions, questionnaires and tools to ensure that they themselves contaminate things as little as possible.

From this point of view, the use of measuring devices has the fundamental benefit of magnifying this externalisation. Objects viewed in this detached way are understood in relation to other equally detached objects with which they share supposedly stable properties such as volume, density, etc. This intensified externalisation is also the basis of plant taxonomy. Plants are viewed less in terms of their medicinal qualities (i.e., their connection with human experience), and more in terms of criteria relating to their supposedly unique properties such as the number of reproductive organs.

However, this externalisation never dominates completely. The correct use of an instrument, for instance, depends on its user’s ability to appropriate it and develop an in-depth knowledge of it. This is a fundamental reason behind the conflicts of competence and the cooperations which can occur between scholars, engineers and apothecaries.

Scholars never manage to resolve this tension between object and lived experience. Trapped within the transformation, like a wheel within a wheel, they try to escape their relationship with things in order to understand them. And each time they think they have succeeded, each time they think they have freed themselves of the mediations between themselves and the world, they realise that they are in fact still there, but in another mode. With medicinal plants, the mediations from which they must free themselves are also the knowledge of the people from whom they learn: the charlatans, peasants, Native Americans or black people, “botanists by instinct”. They must objectivise their relationship with plants but run the risk, like Hernandez, of being contaminated by their interlocutors’ thinking.

*THE COLONISATION OF LINKS*

There is no significant “Great Divide” between “regimes” of knowledge but rather a tension at the very heart of every form of knowledge, which is played out each time they meet. By appropriating the medicinal plants of the New World, Europeans objectify the Native Americans’ ways of living. This objectification was doubly intensified by the naturalists, doctors, missionaries, inquisitors and even merchants. On the one hand, it enables all of them to determine what within a relationship to reality might be useful and might be taken, or what is harmful and might be rejected or destroyed. On the other hand, the investigation, the mission, the health context and the merchandise introduce new objects into the minds of investigated people, forcing them to distance themselves from a part of their lived experience or even cut themselves off from it entirely.

Imbued with the power to ask questions, the Spanish thus introduced to indigenous people’s imaginations their definition of value, of the medical and non-medical, of good and bad. With the demonisation of tobacco and coca, the Native Americans learned for instance that their way of relating to things was bad or wrong. Whatever hold legal language had upon them, it forced them into a relationship with notions of crime and punishment. Like a demon telling them what to do and what not to do, guilt and fear impinged upon their daily interactions.

The intensity of these processes varied in accordance with repression levels and evangelisation strategies. What is crucial here is not the specifics of each situation, but the process of standardisation sweeping through each. The objectification of American ways of living draws everywhere on the same vocabulary (idolatry, superstitions, etc.) and leads to the same horizons. By “reducing to art” indigenous languages, missionaries thus impose standardised ways of describing the world, which are suffused with their own approach to the real.

Commoditisation is another route to this standardisation. Both a social relationship and an epistemic process, it isolates within a way of relating to things a physical item which can be moved from place to place in order to turn a profit. As they circulate around America and across the Atlantic, the medicinal plants which have now become drugs conferred upon merchants, doctors, scholars and the authorities an increased power over healthcare practices. They fought to accredit the products which they sold or whose usage they deemed vital, whilst challenging the use of rival or dangerous substances. The trade in medicinal plants contributes not only to standardised practices but, more generally, increases the influence of the economy, interest and market value on relationships with the world.

This influence is also noted in the countryside where plantations grow, where the cinchona trees are vanishing and where the coca bushes are razed to the ground. When ways of speaking become general languages, when the movement of people increases, the distribution of goods succeeds in disconnecting relationships with places. Remote usage dictates local usage, one existence imposes upon another and products connect people who don't know each other. This is not a form of “globalisation” or even “internationalisation”; it is the delocalisation of life.

Investigation, Christianisation, commodification and the imposition of labour do not necessarily coincide but they do all produce behaviours and standardise lived experience. The logical consequence being that America is a place of vanishing knowledge on a huge scale. Christianised Native Americans stopped using certain plants, not only because they had been demonised but also because in appropriating European objects, they forget the wisdom of their ancestors. “My Native American relatives used a lot of herbs, which I don't remember,” said mestizo Garcilaso de la Vega.

As this knowledge was on the verge of extinction, missionaries and travellers recorded traces of it in their writing, as the executioner gathers the last words of the condemned. This conquest of knowledge preserves in writings or in books that which it was in practice helping to destroy. This extinction is not akin to the burning of a library. This lost knowledge cannot be stored on shelves but resides in living connections in the world.

In Europe, in the same era that scholars were exploring unknown lands, the witch-hunts were leading to the eradication of vast swathes of plant knowledge. But this period was also the time of a huge accumulation of knowledge, which might be compared to that which took place in America. The conquest of knowledge is not a purely an American Indian phenomenon: it is emblematic of an era in which all regions in contact with Europe saw the incursion of official knowledge into lived experience. The nineteenth century might be considered the high-water mark of this process in Europe. This was however imported from the Indies, as suggested by Abbé Gregoire’s historically significant survey of patois. The questionnaire which he distributed throughout the French provinces in 1790 had a clear aim: to destroy local dialects.

Between the fifteenth and nineteenth centuries, European science accumulated knowledge as fast as it destroyed it. I hope to have made clear the extent to which this asymmetry is inherent in notions of ownership. According to the Cardinal of Lugo, ownership is the “right to use and dispose of property” or “freedom of use”; but it is, ultimately, the power to curtail use. As knowledge vanished, things which had previously been freely available now had to be worked and paid for. By way of compensation, a market or a “health system” was developed in which treatment tended to be a substitute for care.

Gradually, that which is directly lived recedes into representation. All of these changes shape the emergence, between the eighteenth and nineteenth centuries, of the state. Holding the monopoly on legitimate knowledge, the state colonised links by placing between people laws and standards as well as commodities, whose metaphysical subtleties and theological niceties are never more clearly revealed than when viewed through the prism of knowledge.

*LIVING KNOWLEDGE*

This may paint a bleak picture. And bleak indeed it is. However, it would not be complete without mentioning all the knowledge which escaped the objectification of ways of living. The Inquisitorial trials hint at its scale, but only ever reveal a minute part of it. Protected by a veil of secrecy, this invisible knowledge has been passed down through the centuries, from one individual to another, whether via oral tradition or through practice.

The prevailing atmosphere of secrecy, in its silences and its lies, creates strategies and tactics, an intelligence in social relationships, an art of evasion. And yet it is not enough to simply reduce it to this strategic dimension. Secrecy protects remedies and poisons from enemies who might wish to steal them; yet it also protects a relationship with a reality of which it is often already an expression.

To be an integral part of their ways of living, medicinal plants are a part of themselves. Not passing them on signifies not having an aspect of their existence cut away. As well as being resources, remedies are links with people, languages, places and invisible realms. Their continued usage is a sign they are impossible to uproot, as perfectly illustrated in relation to psychoactive substances. Nothing is harder to uproot than something rooted in the realm of the imagination. Hence the use of hallucinogens, where they are relatively tolerated by the authorities, is no less subversive than the use of poisons

In the invisible war being waged in America, psychoactive substances make the most outrageous things possible: seeing what should not be seen, and imagining that other worlds can be built. The prohibition of peyote, imposed many times throughout the seventeenth and eighteenth centuries, is an indication of the political importance of controlling people's imaginations. All outbreaks of disorder in America between the sixteenth and eighteenth century are in some way or other related to the use of hallucinogens. Disorder must be imagined before it can burst forth; and as soon as it is imagined, disorder is already unleashed.

From the local poisoner to the mystic leading a revolt, it's often the call of voices and dreams which lead people to march their discord through the colonial streets. And all that is needed to summon this great power is to collect a few plants.

Several centuries on, it is not unreasonable to suggest that one of the governments’ greatest achievements is not the banning of hallucinogens and poisons, but their banishment from people’s very memories. And yet there isn't a forest in Europe which does not contain poisonous or psychoactive plants. One has only to compare the knowledge of these plants in America and Europe, and compare the extent to which knowledge of song and dance thrives here and there, for the relevance of another question to become clear: who are the colonised?

The richness and diversity of the pharmacopoeia which continues to this day in America are evidence of the resistance which occurred there. Despite the repeated assaults of Christianisation and trade, despite the imposition of labour, the rubber wars and the ethnographic explorations, entire communities of Native Americans, Maroons and the descendants of slaves managed to maintain their own ways of relating to the world.

This continuation is the exact opposite of preserving a practice set in stone. It represents continued faithfulness in its strictest sense, i.e., the permanent reworking of a relationship with things. With all the witches who met there, all the people which they brought together, the Maroon communities were a theatre of permanent creativity. This underground culture is made up of secrets, counter-appropriations, misappropriation of official knowledge, the trafficking of goods and the re-appropriation of languages and religions.

*THE CONFLICT OF KNOWLEDGE*

Having and knowing. If the conflict can be interpreted as a dialectic of property, it can also be interpreted as a dialectic of knowledge. By becoming a conflict of ways of living, it appears through its unifying force, which all the reductive interpretative frameworks hide, whether economic, sociological, identity-based, etc. More specifically, it would be impossible to understand the history of medicinal plants by reducing it to a battle of interests. As soon as the tensions expressed in the sources are taken seriously, another aspect appears crucial: the reality of feelings.

Mistrust, hate, love, shame and confidence are languages common to all the conflicts mentioned in this book: in commercial transactions, the conflicts between courtesans at Versailles, the attack on cattle, the secret of venereal disease or in the disgust and mistrust expressed by Jussieu during his travels in Peru

Interest has certainly played a growing part in these stories. From cinchona to coca it has forged the destiny of several medicinal plants. However, its impact on the ways of living of merchants, officers and naturalists was not the same as that of the rest of the population in Europe and America. The best way to misunderstand a conflict is to reduce it to the terms in which it is seen by those who won it. Medicinal plants are not controversial because they set against each other two sides wishing to monopolise the same resource but because they polarise two different ways of connecting to things.

To view this conflict as a battle through and for knowledge is not therefore to deny its materiality, or to conceal the armed violence, but to articulate its deep-rooted momentum and open up a possibility: that the battle for the appropriation of resources is a battle against the very existence of this battle. It is the only way to have the slightest chance of escaping the closely enmeshed wheels of power.

1. *Expérience* means both “experiment” and “experience” in French—Trans. [↑](#footnote-ref-1)