The International Journal of Illich Studies ISSN 1948-4666

The Stuff of Traffic Landscapes

Jean Robert

Steel and concrete structures covered by glass, highways, low-rise suburbs, parking lots, air-conditioned interiors, canyons—that we still call streets —between high-rise buildings, open fields, industrial areas and again, suburbs constitute the daily environment of most urbanites. These are the elements of their obvious world. Locations often take the appearance of coordinates on a grid—Sixth Avenue, Second Street—and everybody schedules his day as a to and fro movement between a particular set of locations. In-between space-times are to be abolished, and speed is the means for that suppression. Yet, the "stuff" we perceive our obvious world made of is mainly generated in the devalued in-betweens. The daily ritual of commuting contributes to shape the commuter's perception of day and night, of places, of the material constitution of nature and of the forces that inhabit her. For him, day succeeds to night and night becomes day at the rhythm of the switch between low-rise suburbs and high-rise centers. A meadow, a patch of wood, a river here, a pond there are but points of reference on a trajectory, and no sites. Or better, once framed in the windshield of a vehicle, natural locations lose the aura of unique places they long retained. Vehicular vision is selective in a way pedestrian people could not imagine: what does not serve the purpose of orientation is generally evacuated into a perceptual limbo. E.V. Walter, who has a sure sense for forceful neologisms speaks of the 'rubbish of experience.'

For the hurried commuter, obsessed by the threat of traffic jams or by scheduled

connections to take, speed dissolves all sites into evasive images which, unless they contain a significant detail, are evacuated to the rubbish of experience as soon as they were seen. As it crosses a site, the vehicle leaves behind a material and symbolic halo of fume and "seen sights." There is a paradox of the commuter which has thus far not attracted the attention of sophists: he <u>is</u> geographically there where he will never <u>go</u>. Or better, the hasty images seen through the shield are the visual ghosts of places that he will never meet: speed separates his body from the sites his vehicle crosses.

The walker meets the sites of nature with his legs, his nose, his ears and all the pores of his skin. For him, there are smelly places, other are recalled for their unique odors. Besides, places vary with the seasons and the hour of the day, constituting local "spimes" whose memory is impressed in the walker's body: that bench under a Jurassian pine is for me inseparable from the record of wet armpits on a sunny afternoon. Two miles away, that fountain is for me the place where we washed our shirts, and I can still name the friends who will remember the site. The internal state of the walker's flesh echoes that of the "flesh" of the landscape, and vice versa, which is why old toponymies speak of bodily marks imprinted in nature.

Speed draws a virtual dash between an origin and a destination. It extracts the body from an original "here" and aims at a well localized "there" where it lets it go again. The in-between spime is not abolished but fused into a daydream. Remember my argument: I argue that this day dream — dreamt during "in-between times," in locations which are no places — is the melting pot of most of the modern imagination of stuff. If I am right, the stuff of the obvious world as we perceive it grows in the shadow of our attention and its threatening strangeness could any time —as an art critique wrote about painter Sydney Goodman's perception of the modern obvious world — "take us unaware in the moment of our indifference." The imagination of stuff drifts

away, with the daydream of the imagining mind. Perceptual buffers -cushions, lids, two-or three-folded windows, black noise and the unavoidable music—confine it to a space where it can be tamed by taught ideas and captured by truisms. Imagine an extreme situation, an "ideal type" with which the real experience can be matched. Imagine a car driver who had never been a walker. His body would be virgin of the memories walked landscapes imprint in the walker's flesh. For him, what others still call the landscape would consist of sheer images deprived of all flesh. The windshield would sever the warm interior in which his body rests at ease from an abstract outside that he would not call nature, nor even the landscape, but perhaps "the environment": that undefined and half threatening extension surrounding his vehicular uterus. All his representations of the world would differ from the walker's, who knows that the places he meets with the power of his feet have an independent existence. This theoretical driver would construct his reality on an epistemological ground fitting his confinement in a wheeled box. The images through the shield —or better: on the shield —would come and go depending upon his ability to make them surge by an apt manipulation of the board instruments and the map. The visible environment, he would state, is contingent to my technical skills. No wonder that such a man would not stop to assist a wounded traveler abandoned on the side of the road: a push on the gas pedal would abolish the disturbing image. So far with the ideal type.

The Vehicularization of Perception

The Greek word *opsis* designates a reduction of sensual reality to sheer optical stimulations. All driving involves by force some degree of functional *opsis*. When he steps into a vehicle, the walker ceases to be a walker in order to become a driver or a passenger. Modern man differs from the ideal driver in that he daily jumps from one state to the other. In first

approximation, it is as if he had two interchangeable conditions: the pedestrian condition in which he retains many traits of traditional man, and the vehicular condition, which is an unprecedented historical novelty. Closer observation however reveals that the experience of being a driver, a passenger or a commuter is more than a parenthesis between two pedestrian experiences. Once he has framed nature into a windshield, man the commuter never quite becomes a walker again. He now tends to see all landscapes through an imaginary shield, just as addictive photographers cannot help seeing you through an imaginary lens. A general "vehicularization of perception" begins so to substantiate the vision of the natural and the social world.

One of the symptoms of this vehicularization of pedestrian realities is the specialization of walkers into sub-species: some are called tourists and are recognizable at the cameras hanging from their neck; others, duly equipped with earphones, are called joggers; men and women too poor to afford transportation fares or rich enough to live close from where they work are officially described as practicing "transportation by foot"; the police keep an eye on loiterers, whom they check for their driving license —or, in its absence, their I.D. — and eventually provide with a destination: "go home" or "follow us." Who still loiters and chats downtown generally speaks Spanish or has dark skin. Who takes the risk to walk along the highways joining the city with its residential suburbs has often an apologizing sentence ready for the police: "I go for stamps; what happens is that I live two blocks from the post office" or "my car is in the body shop, so I took this walk to the supermarket." Who is seen going in the street needs to be rehabilitated as a pedestrian commuter: he must prove that he uses his feet as others use wheels.

Through all history, up to the modern epoch, the feet have defined the scale of inhabited places. The pedestrian condition common to all shaped common perceptions of natural and built

landscapes. The king, then, hardly travelled faster than his subjects. For the best and the worst, neighbors truly dwelled in the same place, and every place engendered its peculiar perceptions and representations of the close and the far, this and the other world.¹ It is this distance, which speed reduces to an amorphous in-between measurable in miles, minutes, hours, or gallons of gas. It is that intimate distance between autonomous sites which speed aims at suppressing and, in reality, only represses. I consider repressed distance in lost time —repressed and alienated "inbetween" spimes ----to be the perceptual ground of most of modern representations of Matter and Motion. It is during these lost "in-betweens" that modern Man is trained to look at pedestrian realities though the Professionalized Eye. Vehicular locomotion leaves the body in command of the sole driving instruments: decisions about directions —right, left, or straight —are left to the hands, while the feet control speed. Only the eye still knows the landscape, but it knows it through the commands of feet and hands on the instruments. Driving first deconstructs the unity of action of the senses and the limbs; then, along with the acquisition of the necessary reflexes, it reconstructs it in a new guise. Vehicular perceptions are a form of opsis in which vision is mediated by technological devices. The theoretical driver who had never walked was an ideal type. We refuse his extremist epistemological position, but we also know that we cannot work in traffic if we do not let our perceptions be re-shaped by the driving instruments, the design of the highways and the code of circulation.

There are other forms of *opsis* where seeing is dependant on technical skills and where the ability to separate what is worth seeing from perceptual rubbish is the outcome of a long

¹ Every inhabited site was, as E.V. Walter writes, "a unity of experiences organizing the mutual (...) influence of all beings within it." Every inhabited site was a stage on which reigned a particular unity of place, time and action. An intimate distance, which was felt in the legs, but was also evaluated in kinship or in intensity of friendship or enmity made every site distinct from the next and gave it, in Walter Benjamin's words, its unique aura.

training. Microscopy, for example: when they first look through a microscope, students are overwhelmed by a variety of unknown visual stimuli, not unlike you and me during our first driving lesson, when the wall at the end of the street threatened with crumbling upon us, while the instructor kept yelling, "Don't look at the obstacle, look at the road." Once he masters the technique of focalizing, the freshman must still learn what to see and what not to see. At the time he is trained into a technique, he is introduced to a new style of seeing. Microscopists say that by subtle changes of focus, they can "see" fine textures in depth with their fingers as well as with the eye. In microscopy, the object is constructed by filtering away some of the artifacts. It is however always constructed in conformity with the instrument's endoscopic characteristics. For the instrumental connection of the eye with what hands and feet do on the instruments, the windshield perception of the landscape belongs in a category with microscopy, telescopy, radioscopy, but also cinematography and photography. I would like to name the vision which is shaped by speed and its instrumentality, "tachyscopy." The image framed by the windshield is no more the landscape than a map is the territory or the object seen through the microscope's lens is a living being. What the microscopist "sees" with eye and fingers is the texture of tissues. What the driver "sees" with eye, hands and feet are references structuring an itinerary. Like telescopy, microscopy, or radioscopy, the "tachyscopic perception" of nature has its artifacts and endoscopic characteristics.

The Kinetic Perspective

The landscape is first deconstructed by speed and then reconstructed according to the endoscopic characteristics of the mediating technology. In less technical terms, the images on the shield are reorganized following a new optical logic. I call this the kinetic perspective.

In the history of perception, the apparition of the kinetic perspective is as much an

innovation as the invention of linear perspective in the l5th century. Linear perspective immobilizes both the eye and the landscape —or the subject —which is seen as through an imaginary window. However, the smallest motion, the slightest displacement of the eye destroys the illusion and restitutes the instruments of vision to their material "thingness," which is how I interpret the famous drawing by Durer, in which a drawer who attempts to project the image of a mandolin on a canvas is represented "laterally" by another drawer. The landscape of linear perspective is static; the observer's body is maintained on the other side of the window at the price of a convention: the painter's eye must remain absolutely fixed.

Linear perspective may have laid the epistemological ground for the subject-object relationship characteristic of classical Western philosophy and science, as Robert Romanyshyn and others have convincingly argued.² But even Lavoisier, a classical master of scientific observation, could only apprehend Paris much the way his contemporary, the painter Philippe Mercier did: "describing it with his legs."³

The kinetic perspective does not fix the eye at a point. It rather confines the whole body in a box. Furnished with holstered seats, severed from the outside by shields, that mobile box acts simultaneously as the body's prime mover and as a perceptual buffer against a direct apprehension of motion, so that motion is, as it were, expelled to the outside. It is landscape itself, not the body's limbs —or like in horse riding, the buttocks —which is now literally imbued with Motion. Though the sentence contradicts sound rules of language and logics, where

² However, the precarity of that relationship must also be stressed: it is always subject to the convention of the fixed eye, and I think that this optical convention can be transposed to the scientific styles of "seeing," where the observer's body is "expelled" by strictly codified observation procedures - the equivalent of the imaginary window. ³ The style of vision proper to Lavoisier's trade could hardly influence his pedestrian perceptions.

motion is only an attribute of Matter, it is as if motion were allowed to become the "stuff" of the landscape. Or better, it is as if vehicular speed reduced the landscape's glebe to a malleable ether —simultaneously Matter and Motion —which constitutes the real "stuff" of the images framed by the shield.

An invisible energy capsule, which hardens when speed increases, surrounds the vehicle and severs its interior from the outside world. It is that energy barrier which keeps vehicles apart on highways. Its "thickness" depends, as every candidate to the driving examination knows, on the half mass of the vehicle multiplied by the square of its speed. Seen from the inside of the mobile box however, it is nature which now appears as loaden with a dangerous kinetic energy. Remember again your first driving lesson when you had the impression that a rock barring the horizon would collide with the car. Poets and writers like Maeterlinck, who around 1920 left testimonies of their first experience as passengers in a car, had similar "energetic" perceptions of the outside world. Between the inside of the mobile box - the "cabin" - and the world outside, there is a difference of energy level, no matter where you put the "plus" and the "minus." This difference maintains inhabited bolides on their paths, preventing their occupants from immediate interactions with the outside. For them, signs of others' distress on the road's side are rarely invitations to solidary action. All too often, they are just disturbing images easily erased by a push on the gas pedal.

The kinetic perspective finally also affects the perceptions of the walkers, even those who have never driven a car. They know all too well that highways irradiate a kinetic energy that hurts and kills. "Step on the side!," "Watch out!": most pedestrians have heard these warnings since they learned walking. Walking education today is education to survive vehicular dangers. The ubiquitous noise of the engine silences nature's hubbub and seems sometimes to emanate

from landscape itself. Rather than in smelly glebe, traffic landscapes are molded in the "stuff" of threatening energies, noise, and fumes. I don't content that there are no "privileged sites" left. I say that —with the gaining of the "privilege" —their aura is gone. Once distinguished by an intimate distance "in the legs," they have become the pedestrian appendages of the network of roads. The last places where walking is safe are now advertised as "pedestrian friendly paths," "picnic areas" or "natural parks." These are the reservations of the last walkers.

Once thought of as means to destinations that were still "places," networks of communication have become the all-encompassing milieu of our experiences: just as communication tends to become "the massage," networks become the milieu. Once thought of as a means to make sites accessible, the technology of speed generated a networking environment of asphalt and concrete imbued with diffuse energies. In that milieu, the driver —but also the non-driving commuter — stands to the unspecialized pedestrian as the developed to the underdeveloped.

The all-encompassing vehicular milieu which progressively absorbs or subdues all places, molds the perceptions of drivers, passengers, and walkers alike. It is the common "stuff" of their distinct realities. In order to stay alive, the last walkers have to do what drivers do in order to race: they frame nature on an interior windshield. They do so by internalizing the rudiments of the traffic code — watch out, first left then right when crossing a road — and obeying signals, like drivers. In that milieu, walking has truly become a cheap, inefficient, and often degrading form of transportation. Once the whole of landscape has been vehicularized, it is no longer the vehicular experience alone, but the whole vehicular milieu which acquires special perception-shaping powers. In the shadow of transportation technology, walking itself becomes a technology-related *hylopoetic* experience. The walker's feet cease to stamp the old glebe or the

pavement stones and starts to knead the same stuff that motor wheels churn.

The Stuff of the Modern Obvious World

Energy-laden matter —or is it materialized energy?— is evidently the stuff out of which our obvious world is made. Energy carriers —tanks, fuel-laden trailers, high-tension cables, pipe-lines —in the environment are facts, not products of our imagination. Besides, they are scientific facts which lie beyond the reach of common-sense certainties. Very specialized disciplines and elaborate experiments are needed to produce the laws of energy conservation, the equivalence of matter and energy, and fashion the mystery-filled "high-energies."

Scientific disciplines are highly conventional perspectives, each —if Romanyshyn is right in generalizing the "fixed eye" to the epistemology of science —with its peculiar vantage point. The concepts of two different scientific disciplines are generally incompatible, just as the lines of two different perspectives cannot be superposed. Physics does not recognize "value," an economic concept; "enthalpy," a physical concept, has no place in linguistics; "potency," a concept of number theory means nothing —or something else — in, say, physiology. Economists do not —or should not — deal with "entropy" which is a physical concept. Some do however, which is why a normative "should not" modifies the descriptive "do not." On one occasion at least, Marx did not and told his disciples why they should not: it was when someone urged him to incorporate the energy concept into his theory of value. "Political economics, he answered, should not talk physical gibberish."

In contrast to scientific concepts, truisms derived from all sciences fit each other like the pieces of a jigsaw puzzle. This puzzle is the upper floor of our civic worldview. The fact that scientific concepts migrate between disciplines and, besides, fit the puzzle seems to indicate that

Science partially also consists of truisms. The truisms derived from physics and the ones inspired by economics —in spite of Marx and his warnings —have acquired a special affinity. Matter and Energy thereby gained an intrinsic Value, independent of the local conditions of their existence or of their use. It is how the popularization of scientific concepts contributed to railroads fracturing the unity of location, time and action that made a place unique. Nerds, who in addition to considering energy a "value" also, remembering their physics classes, remind us that "matterenergy" exists under two guises: as a value and as a waste. When matter's energy content is free for further uses, energy is a "value." When this energy is bound —not disposable, dissipated —it is a waste. Experience confirms this received wisdom: modern Man transforms everyday valuable wares into waste. Just as broken Humpty Dumpty could not put himself together again, wasted wares never spontaneously jump back on the shelves of the supermarket. Qualitatively, the transformation of matter and energy is not a cycle, where what has run down the hill gets up it in the next moment, but an irreversible degradation. We pay to get rid of waste, and since it also "costs energy," the industrial treatment of waste means more waste, somewhere else. It is a palpable fact, and those who live near an incinerator can even smell it.

The power engine provides us with metaphors that enlighten our perceptions: the economic process "burns" values just as the engine burns fuel, and at the end, both produce waste and ashes. Ashes never become coal again, dissipated heat never spontaneously returns to the "hot source." Sadi Carnot, who stated this in 1831 is now praised by some as an economic seer, as if he had stated by implication, that disvalues never become values again without generating more Disvalue.⁴ The upper work of the modern civic worldview —taught ideas

⁴ Since a German physicist named Rudolf Clausius coined it in 1861, the term "entropy" designates the

[&]quot;wastedness" of energy, its acquired incapacity to perform work or to undergo useful transformations. It adds a time

feeding truisms — is congruent with the bottom line of the facts of modern life. The energetic world view and the obvious world are tangled in one and the same inextricable web of meanings. Concepts corroborate percepts, daily perceptions verify half forgotten theorems. Like in the chicken and egg riddle, it is impossible to determine if perceived stuffs called for the concepts enlightening them, or if the first substantiate the latter. Daily rituals — commuting to work, weekly visits to the supermarket, the burden of homework among electric appliances — mold perceived stuffs and truisms into one single construct: we call it reality. The obvious world of modernity is a self-confirming, hermetically sealed circle. The same epistemological forces shape it and corroborate it. However, if we think that matter-as-we-imagine-it coincides with matter-for-science— that universal and eternal substrate of the universe physicists call "matter-energy" —the stuff of the obvious world can only confront us in an inscrutable opacity.

The historicity of matter, of the imagination of stuff can first be stated as an internal necessity of any critique of the obvious. It can then find a ground in the drift of the imagination of matter: the "stuff" of our intimate perceptions never coincides with matter-for-science, though it is shaped by truisms derived from science. Finally —and it is where the "historian of stuff" demonstrates his skills — matter-for-science —the "matter-energy" of modern physics itself — has to be subsumed into the History of Stuff or of the imagination and perception of matter. Scientific ideas —or what is left of them when the teaching has been forgotten —pretend to confirm every bit of stuff of the modern obvious world. Facts and ideas— the stuff of the

arrow to the quality, or lack of particular qualities, of modern matter: like all rivers end in the sea, all energy and — Georgescu-Roegen insists — all matter end in an ocean of "high entropy." Matter-as-energy is the paradigm of the modern imagination of stuff. It first de-localizes matter and the forces of nature and deprives them of their smells, tastes, intimate humors and other particularities. It then places what is left under the fatality of irreversible degradation.

obvious and the truisms in-forming it — coalesce into impenetrable concrete. The way to break that impenetrability and to scrutinize the obvious is to restore the imagination of matter to its historicity.

Rendering the Obvious Scrutable

Truisms only make the obvious world intelligible within the confines determined by a ritual: when we repress all "why?" questions in favor of "how?" questions to which acquired reflexes are the responses, or when we accept as true the truisms justifying the ritual, or when we relinquish all curiosity for the stuffs situated outside the shield or on the other side of the enclosure. The spell can be broken by appropriate "why's," by agnosticism in front of "scientific" certainties or by trespassing the enclosures. It is the overt purpose of this essay to foster these three rebellious attitudes. The question is "where do we start?" To make the obvious scrutable and defend ourselves against its visible and its obscure threats, I think that the best start is to pose nasty questions about the stuff of lived experiences in the daydream of technological rituals and to check the answers against conventional wisdom.

We have learned to think and to say that highways satisfy transportation needs, that hospitals provide us with health services, that schools provide education to our children. These statements are truisms. They answer questions like: "how do I conform to the civic world view," or "how do I think as my neighbor says he thinks?" They give no answer to questions like: "Why do you spend two hours a day on highways?," "How does it feel to sit on school benches for fifteen years?" or "What does dying in a hospital mean?." The rituals of commuting, of medical treatment or of school attendance throw any personally felt answer to these questions into the rubbish heap of experience. Commuters, patients, and the clients of schools are maintained in a state of perceptual deprivation: it is as if their experiences had no personal depth and no other sense than the one which confirms taught ideas. Just as car drivers learn to abolish useless visual perceptions, and pupils become numb to the stench of school rooms; and patients even lose their capacity to suffer after weeks of hospital confinement, so the satisfaction of its energy requirements puts the body of modern Man in a state of constant homeostasis with its environment. Think only of your overheated apartment or your car's conditioned atmosphere.

Modern stuff is imagined in a state of general numbness or better yet, the forces shaping the modern imagination of matter have their sources in the rubbish heap of experience. We imagine matter as what is left of stuff when hot and cold, odors, tastes and tactile qualities have been suppressed or thought away. Modern stuff is the ghost of the materiality of things framed by several perceptual shields. Shaped—in-formed—by truisms laced with a scientific flavor, it is the malleable plastic which then fits the obvious facts of our existence. To scrutinize the obvious, we have to put our noses deep into the stuffs out of which it is made.

Jun 23,1989.