

Asphalt: Towards a New Picturesque

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IF THE LAWN represents the commendable side of the rectified picturesque landscape that we have come to associate with the "American way of life," asphalt constitutes its wild counterpart. Asphalt crudely exteriorizes the violence lawn tends to repress. Lawn represents an idealized nature that can only exist through a massive use of artifice. Asphalt, the material of the most brutal and generic urban conditions, is connected to the harshness of the most inhospitable landscapes: it is the rock of an alternate tundra. But to think of asphalt only in terms of urban hardness would be to forget how this substance is inherently fluid.

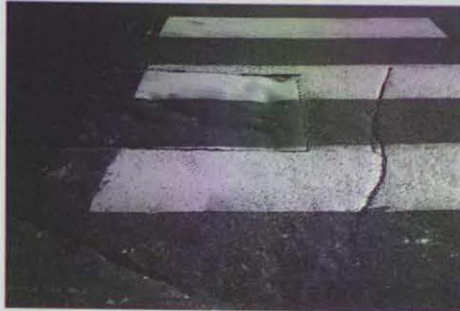
From geological depths to paved surfaces, asphalt always conserves a potential for transformation. Its plasticity can be experienced both through the smooth ride it procures to fast moving vehicles and through the scriptural topography that can be read into it when walking slowly. Indeed, asphalt is an organic palimpsest that conserves the traces of city life. It ages and can be grafted: it is the skin of a different kind of body. Oscillating between solidity and flux, grip and flight, asphalt condenses the conditions of contemporary urbanity. To follow the labyrinthian micro-landscape of the folds and fissures of asphalt; to pay close attention to the pictorial patchwork it composes; to glide above it in a speed-induced hallucination; all this leads to the discovery of concrete virtualities of abstraction, toward a new form of picturesque.

(The expression "concrete virtualities" designates the potential inherent, but invisible, in the most brutal realities. Concrete virtualities can only be perceived by way of a particular attention, a fresh outlook on the banality of everyday life. Concrete virtuality is opposed to virtual reality.)

Historical landmarks

The history of asphalt is astonishing and relatively unknown. The synthesis written by Herbert Abraham is to this day, the most complete reference on the subject.¹ His research covered asphalt's most notable historical landmarks and milestones.

The origin of the word "asphalt" derives possibly from the akkadian word "asphaltu" or "sphallo," which would mean to share. The terminology was later transformed by the Greeks to become "asphaltos." The word "bitumen" was also used as a synonym. The meaning of these words refers to the qualities of firmness and stability associated with the material. Asphalt



has indeed been used to cement and join the disparate, to make consistent the heterogeneous: asphalt was the Tower of Babel's mortar (Genesis XI, 3).² In fact, the first mention of asphalt use dates back to the pre-Babylonian era (about 3 800 BC) in Mesopotamia, where it was used for masonry buildings and for the surface protection of paved roads.³ If the streets of Babylon are the ancestors of our contemporary roads, asphalt was long one of the forgotten wonders of the mythic Mesopotamian city.

Moulded, carved or applied as glue: asphalt can also be linked, in many ways, to the antique artistic domain. Heraldic tables, ornamented bowls and various other precious Middle-Eastern artefacts were made of asphalt. It also played an important role in funerary arts and its processes of conservation. The Egyptians knew the preservative virtues of asphalt since about 2000 B.C., as confirmed by the bitumen-impregnated objects found amongst Toutankhamon's treasure,⁴ and it was used in mummification techniques around 1000 B.C. The term "mummy," that appeared in Arabia and Byzantium around the first millenium, means "asphalt" or "bitumen."

With the advent of the Roman Empire, the use of asphalt diminished progressively. The shift of activity towards Rome implied a distancing from "nomadic Arabia" and its "immense lakes of asphalt" (Vitruvius, *De Architectura*, VII, 3 and 8). One must wait until the discovery of important asphalt deposits, at the beginning of the 18th century, in Switzerland, Germany and France to see its revival in Europe at the dawn of industrialization, more than 5000 years after it was first used in Babylon.

In 1772 in Germany, P.J. Marperger invented the technique of waterproofing flat roofs with tar. Between 1780 and 1790, the Swede Arvid Faxe and the German Micheal Kag independently perfected the first roofs protected by tar paper and a layer of mineral powder. Although Scott John MacAdam is known to have proposed around 1830 that roads of tarred gravel could be compressed with a roller, it is nonetheless in France that asphalt as paving material gained ground. In 1837, J.B. Boussingault wrote the first extensive treatise on the chemistry of asphalt as pavement material. The same year, asphalt blocks produced by Pillot and Eyquem were used to pave the Place de la Concorde in Paris. The first asphalt roadway was laid between Paris and Perpignan, and a few years later, the first modern compressed asphalt pavements were applied to the streets of Paris itself.⁵

These French applications opened a new era for asphalt, and its importance as a paving material has not been diminished since. In fact, asphalt, from that period onwards had a destiny comparable to that of petroleum and automobiles: an exponential development.

1. Herbert Abraham, *Asphalt and Allied Substances*, (New York: Van Nostrand, 1960, 1st edition 1918).

2. "They used bricks instead of stones and bitumen instead of mortar. And they said: Let us go! Let us build a city and a tower that's summit shall pierce the skies." (Genesis XI, 3). In the Greek version of the Bible, the word "bitumen" is translated by "asphaltos." In the Vulgate or Latin version, the word "bitumen" is used. It also seems likely that asphalt was used to waterproof Noah's Arch: "Make yourself an arch in resinous wood, thou shalt build it out of reeds and thou shalt coat both its inside and outside with bitumen" (Genesis VI, 14).

3. Abraham (*Asphalt*, 10) relates that mortars made of asphaltic mastics were found in Our, Ourouk, Khafadje and Tello (Lagash). The famed "Gilgamesh Tablets" (2500 B.C.) mention the use of asphalt in construction. S.H. Langdon, *The Epic of Gilgamesh* (Philadelphia: University Museum, 1917).

4. The funerary chamber of the Child-Pharaoh Toutankhamon (2000 B.C.) was discovered in 1923 by Lord Carnarvon.

5. In America, surprisingly, the widespread use of asphalt came only much later. During the construction of Central Park in 1858, Frederick Law Olmsted and Calvert Vaux installed the first technically correct macadam on American soil. Washington D.C. became, in 1878 the first large American city to make massive use of asphalt. Buffalo, San Francisco, New York and Philadelphia soon followed suit; see Clay McShane, *Down the Asphalt Path* (New York: Columbia University Press, 1994), 58-61.

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