War at a Distance

Body, Space and View in the Image-Guided War

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The World Landscape
The Amalgam Space
The Secure Ground
Albrecht Altdorfer, The Battle of Alexander at Issus, 1529. Oil painting on panel, 158.4 x 120.3 cm.
Félix Nadar, Aerial photographs of the Quartier de l'Étoile, Paris, from a balloon, July, 16, 1868, 23 x 28,7 cm.
The view from above is like a view to a map, because the differences in elevation are not apparent.

Félix Nadar, 1868
das biologische als regulator schlechtin
die letzte und höchste Stufe der Raumgestaltung ist offensichtlich ihre Erfassung vom biologisch möglichen her.
in der praktischen Auswertung:
es kommt nicht auf eine „plastische“, bewegte Außengestaltung an, sondern nur auf die Raumanordnungen, die die für einen gestaltungsplan nötigen Erlebnisinhalte festlegen. Dabei kann nach außen unter Umständen eine strenge großflächige Begrenzung geschaffen werden, da bei der Architektur nicht plastische, bewegte Figurationen, sondern die räumlichen Lagerungen das Bauelement sind. So wird das Innere des Baus durch seine räumliche Gliederung in sich und mit dem außen verbunden.
die Aufgabe endet nicht beim Einzelbau. Schon heute zeigt sich die nächste Stufe: Raum in allen Dimensionen, Raum ohne Begrenzung.
die Grenzen werden flüssig, der Raum wird im fluge gefaßt: gewaltige Zahl von Beziehungen.
das Flugzeug hat in diesem Zusammenhang eine besondere Aufgabe: vom Aeroplan aus tun sich neue Sichten auf. (Abb. 194–198)
ebenso von der tiefe in die Höhe. (Abb. 199)
aber das wesentlichste für uns ist die Flugzeugordnung, das vollere raumerlebnis, weil es alle gestrige Architekturvorstellung verändert.
sogar die beschränkter Raumgestaltung des Industrie- und Wohnbaus macht Vortänge, die das früher erlebte rasch überfluten. (Abb. 200–208)
ähnliches kann von der Verwendung künstlichen Lichtes gesagt werden. Das ist schon heute bei reklamebeleuchtungen bemerkbar. Starkes Licht zerstört das Detail, zerfraßt unnötiges Beiwesen und zeigt — wenn es mit dieser Absicht, also richtig verwendet wird — nicht die Fassade, sondern nur raumbeziehungen.

Von hier aus bahnt sich auch ein Weg für die zukünftige Architektur:
das innen und das außen, das oben und das unten verschmelzen zu einer Einheit. (Abb. 209)
Öffnungen und Begrenzungen, Durchlauferhöhungen und bewegliche Flächen reißen die Peripherie zur Mitte und stoßen die Mitte nach außen. ein stetes fluktuieren, seitwärts und aufwärts, strahlenauf, allseitig, meldet dem Menschen, daß er den unwägbaren, unsichtbaren und doch allgegenwärtigen Raum — soweit seine menschlichen Beziehungen und heutigen Vorstellungen reichen — in Besitz genommen hat.

László Moholy-Nagy, From Material to Architecture, 1929.
Focke-Wulf Fw 189, a reconnaissance aircraft of the German Air Force, 1938–44.
Long-exposure photographs from an aircraft of the British Royal Air Force over Berlin and Hamburg, 1943.
approximately the speed of a horse and buggy); the other, a contemporary poster, was moved at fifty miles per hour (the speed of an automobile). Both posters could be read easily. Then Carla accelerated the speed of the Toulouse-Lautrec up to fifty miles per hour, and at this speed the poster could be seen only as a blur. The implications are obvious. The artist, architect, advertising and display man, must count with the quickly moving vehicles requiring a new orientation toward spatial organization and communication. A new viewpoint in the visual arts is a natural consequence of this age of speed which has to consider the moving eye. (And what an improvement it would be if the signmakers of streets and highways were also aware of this fact.)

Jean Labatut (Princeton University) had the task of preparing effective outdoor advertising for a factory site half a mile long, situated along a highway with heavy motor traffic. Studying the problem, he found that the required water displays, fountains, lights, even the shape of the pool which had to mirror the buildings, had to be related to the speed, that is, the rapidly changing position of the spectator at the wheel. On the basis of calculations as to time and vista he suggested a “time facade.” It consisted of continuous mobile light and water displays placed so that they could be perfectly seen in 30 to 60 seconds, the time it took a car to drive along the site at 30 to 60 miles per hour. Such an approach translates the static meaning of advertising into a kinetic process, “shooting at a moving target.”

Photography, motion pictures, the speed studies of futurism and cubism handled such aspects intuitively, anticipating the vision in motion of a motorized world long before an actual need existed for a new visual education based upon scientific standards. Safe air travel, for instance, is greatly dependent upon the skill and visual alertness of pilot and navigator. Their vision in motion—especially at landing—the flashpuck ability to identify small details within vast areas, has to be conditioned to the new validities of speed since even radar or other mechanical equipment can fail.

From the manifest of the futurist painters, 1912:

“Indeed, all things move; all things run, all things are rapidly changing. A profile is nearer motionless before our eyes, but it constantly appears and disappears. On account of the perspicuity of an image upon the retina, moving objects constantly multiply themselves; their form changes like rapid variations, in their mad career. Thus a running horse has not four legs but twenty, and their movements are triangular.”

The relationship between the velocity of the dissected movements gave him the clue to improving the action of gullies, turbines, spinning wheels and various kinds of machinery. These pictures are juxtaposed details of frozen move-

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László Moholy-Nagy, Vision in Motion, 1947.
The satellite images of the whole earth supported the idea of a special world-view. They begun to replace the world map of nation-states by a one-world-geography of the media.
Photograph of an airfield in the Soviet Union from a Lockheed U-2 (equipped with a large-format and a thermographic camera, electronic sensors), 1960.
Infrared image projected onto the heads up display of an F-15 E Eagle aircraft, USA, 1989.
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AH-64D Apache Longbow with a radar dome mounted to the mast.

Cockpit of the AH-64D Apache Longbow.
Pilot and copilot/gunner in a AH-64D Apache helicopter.

Apache helicopter's pilot looking at a radar screen.
Apache helicopter’s pilot with monocle in front of his right eye.
A demonstration of cockpit interaction in the AH-64D pilot seat.

https://www.youtube.com/watch?v=euo566iW6kU
In this way, the real-physical and medial space are combined to form a hybrid space. Within the new landscapes of ‘hybrid’ the view from above is formed by highly complex machine processes.
A MQ-1 Predator of the United States Air Force in training.

Ground control station for controlling a Reaper drone.
Drone pilots are the opposite to Kamikaze pilots. On the one hand, there is the total self-sacrifice, and on the other, total distance. While the body of the Kamikaze pilot merges completely with the body of his weapon, the drone provides radical separation. Kamikaze means: My body is my weapon. Drone means: My weapon is without a body. For the Kamikaze pilot, the death is inevitable. For the drone pilot, the death is impossible.

Ground control station for controlling a Reaper drone.

Tullio Crali, Nose Dive on the City, 1939.
Nose Dive of a JU 87, 1937–44 | Horizontal and dive bombing.

Tullio Crali, Nose Dive on the City, 1939.
Tullio Crali, Nose Dive on the City, 1939.

Vladimir K. Zworykin, Flying Torpedo with an Electric Eye, 1934.
Target acquisition element of a Reaper drone.

Advertising of the Junkers-Luftbild-Zentrale, 1926.

Omer Fast, *5000 Feet is the Best*, short film, Germany/USA, 2011.

Charles and Ray Eames, Powers of Ten, experimental film with the financial support of IBM, 1977.

A drone pilot and a sensor operator in a ground control station, 2009.

https://www.youtube.com/watch?v=unv9C2t7f5c
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Camouflaged Binnenalster and Outer Alster, Hamburg, aerial photographs by the British Royal Air Force, July 1941.
Lockheed Air Terminal, Burbank, 1940.

Camouflaged Boeing Aircraft Factories, Seattle, 1941.
Camouflaged Lockheed Air Terminal, Burbank 1941.
Frank O. Gehry, New Facebook Headquarters, California, 2014–17.

U.S. Federal Highway Administration, Smart Geotextiles, 2013.

Toshio Shibata, Constructed Landscape, 1989.
ScanLAB, Subverting the Light-Detection-and-Ranging-Landscape, 2011.

ScanLAB, A hypothetical „stealth object“ resistant to laser-scanning, 2011.
The view from above no longer sets an all-round borderless, continuous, and abstract space into the image. The imagined space is rather a fragmented, a discontinuous space that oscillates between abstraction and – as a result of the extreme close-up – a new concreteness. The desire to protect from the drone views forms the earth’s surface into a single sensitive electronic interface. The aim or the result of this form of protection is the total militarization of civil space.
Prospects The Forensic View
Forensic Architecture, Reconstruction of a drone strike, 2014.