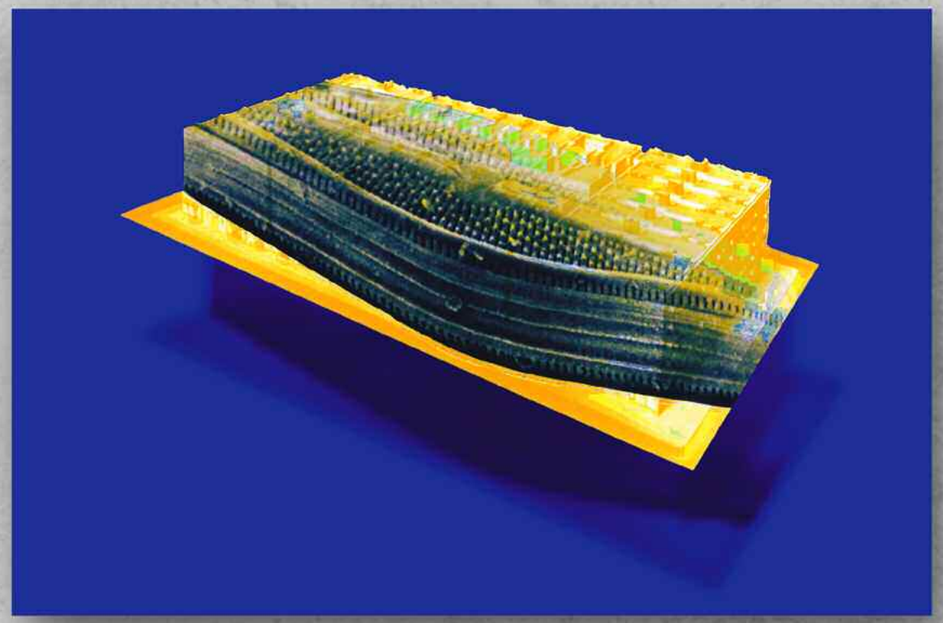
G E O R G M Ü H L E C K

"Life Space & Simulation"



Life Space #25 (door) Datagraph-Ilfochrome • (Türe)

Life Space & Simulation

Dr. Andreas Vowinckel
(Translation by Birgit Lamerz-Beckschäfer)

"Life Space & Simulation" is the name Georg Mühleck uses to describe the work he has created through his artistic interventions in the new office building constructed by the Stadtsiedlung Heilbronn GmbH.

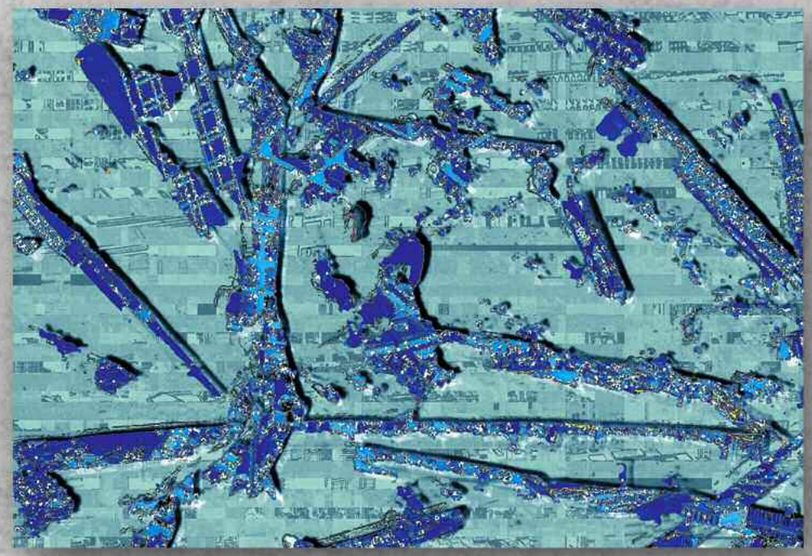
In his work concept, Georg Mühleck discusses two factors: on the one hand the building for which he has developed artistically, i.e. aesthetically-defined design suggestions, and, on the other hand, the technology which constitutes not only his own tool kit, but is increasingly intruding into our daily life, determining it and thus thoroughly changing it. The Stadtsiedlung Heilbronn GmbH uses the office building as its administrative headquarters. Like all previous buildings serving the same purpose, this is the place where all decisions are taken on programmes and initiatives for the implementation of which the society was originally founded: to build urban settlements for housing and commercial purposes, to carry out construction projects and thus also to take on responsibility for the community's town planning activities.

Georg Mühleck approaches these tasks with suggestions for an artistic design, relating the function of the building to processes mirrored by analogous structures proposed by state-of-the-art computer technology, mainly by the scientific software of the "Cellular Automaton" he uses. The new building is intended to accommodate the administration of buildings, groups of houses, entire streets and suburbs inhabited by human beings. They constitute an organism encompassing active life, which is itself part of city life as a whole and of the people filling it. His overall artistic concept is therefore to "counter the stable architectonic material, the aerial views and close-ups on human settlements with the biological microcosm and its simulation, thus establishing a connection between both."

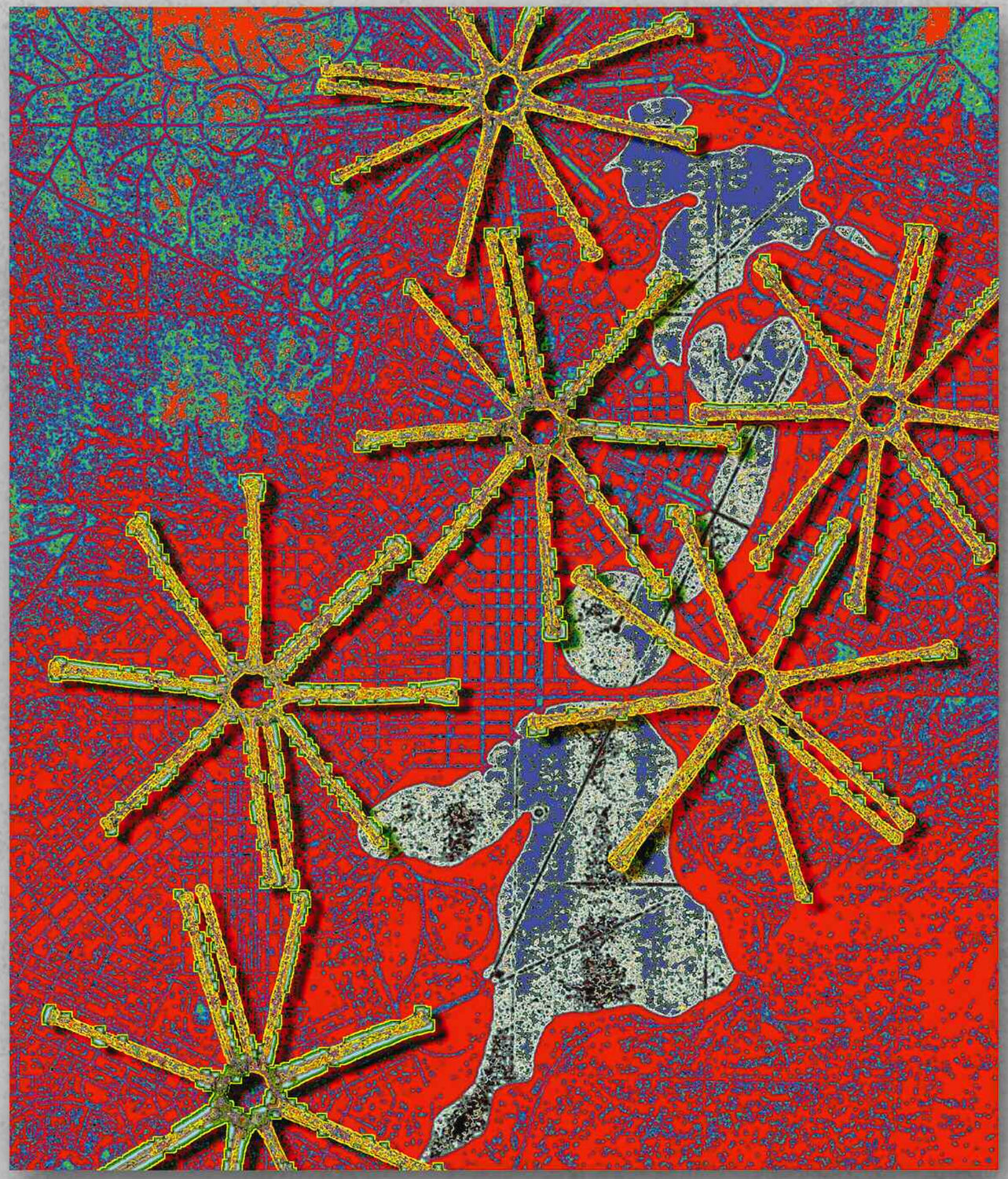
The transition of mankind from the nomadic life of prehistoric times to sedentariness has, in the course of several millennia, led to the emergence of settlement types recognised today as major cultural achievements. We not only draw from them essential aspects of our self-image, but also organise our lives and their increasingly complex structures inside the highly developed conurbations embodying our existence, our relationship to ourselves, to our neighbours, to urban life and not least, also to nature. Embedded in the biological laws of growth and decline, a relatively short time span between birth and death, we are part of nature ourselves.

Man-made buildings and settlements outlast our personal life-spans, and are testimonies and traces we leave in history, "planned constructs", as Georg Mühleck calls them. They reveal much of our thoughts and feelings, our perception of ourselves in a world that we are modifying by interfering with nature. In a figurative way, however, they too obey the laws of a nature which is placed outside the categories of time, undergoing continual changes and a process of regeneration. Every year, we watch time and again plants coming to bloom and animals awakening in the annual cycle just as we ourselves regenerate from one generation to the next, never standing still, but always caught in an irretrievable, singular moment lived here and now. It is a process which we, in order to see where we stand and find our way through it, define in terms of past, present and future.

Natural science, especially physics, uses calculations to probe ever deeper into the laws of nature, which they express in terms of figures and formulas, thus withdrawing them entirely from our general understanding. Nevertheless, the invention and development of the computer (and the respective accompanying software) have notably contributed to aiding our understanding of those processes that we are more or less helplessly subjected to. This is precisely the reason why scientific ambition will never flag, or, rather, wane only after man has discovered the key to the origin of life, our living space, the cosmos in all its large and small aspects. Striving to solve the riddle, man has developed ever more complex hardware systems and software programs enabling him to substantiate the theories by adding the pieces of the puzzle one by one to highly developed trial settings. Fractal geometry now enables us to use the computer to simulate the wide spectrum



„Global micro hotchpotch" Datagraph-Ilfochrome mural 303 x 520 cm



„Asterionella Canberra“ Datagraph-Ilfochrome mural 268,4 x 228,3 cm • Wandbild

ranging from micro- to macrocosm, within the meaning of self-similar natural processes such as glaciation, water currents or cloud formations, i.e. to visualise immanent processes governing nature in the area of conflict between chaos and order, meaning to make them intelligible, maybe even comprehensible.

Georg Mühleck, to finally return to the reason and topic of this introduction, has worked with machines since the early 1980s, as an artist at first exploring their potential in depth in the traditional sense. During that period he was still dealing with the material, visible image resulting from a manually triggered work process, using machines that enabled him to create colour photocopies. His artistic interest focussed on the rationalisation of work in a society whose economy and administration increasingly transferred the effort needed for manufacturing products to machines (automation), but also on examining their work modes, structures, mechanisms and the results achieved with them by revealing them in visual, i.e. sculptural documents, or copigraphies, utilising the various interpretative purposes of the machines used.

“Automata Mind” is the name Georg Mühleck gives to the work approach he broadens and modifies during the 1990s. No longer using the document as a picture, he now works with the computer and its memory potential alone. His interest is aroused particularly by the discovery of specific scientific simulation software such as “Cellular Automaton”, a generating factor firmly bound to the computer enabling him to visualise algorithms in the sense of a self-reproducing automaton. By taking reference to plants such as diatoms or to crystalline structures, they kindle associations of “serial appearances of blocks of buildings”, streets of houses or complete settlement structures.

“Life Space & Simulation” gives us access to a new, so far little-known world which is part of our life. It is now present in your lives to seduce you at your everyday workplace, to venture where, despite sophisticated modern electronic means of communication and their opportunities, the area of conflict between nature and art still offers some scope for those fundamental needs threatening to disappear far too quickly in our administrated world: the freedom to dream, to give yourselves over to dream images. What you see here are no pictures of an imagination alien to you, created by another person or artist, surreal dream images of psychic obsessions. Instead, you are lucky enough to be given an opportunity to discover new images inside yourselves every day and thus to reflect on yourselves amidst the hustle and bustle of everyday work.

This is something Georg Mühleck can claim as an essential criterion for the success of these works and as a major contribution to current media-oriented art.

(October 1997)

"Candy, Sandwich,
Treasure Chest"
Datagraph-Ilfochrome
934 x 292 cm
3 storied lobby

Foyerwand über
3 Stockwerke

"Life Space #15b" (door) and #15a (mural in 3 parts), Datagraph-Ilfochrome 203,5 x 88,0 cm and 275 x 333,4cm
"Life Space #15b" (Türe) und #15a (3teiliges Wandbild), Datagraphie-Ilfochrome 203,5 x 88,0 cm u. 275x333,4cm

"Flugzeit" Lift, Ilfochrome in glass doors, 3 panels 190,3 x 97,8 cm
Aufzug mit Ilfochrome-Isolierverglasung, 3teilig je 190,3x97,8 cm

Life Space & Simulation

Künstlerisches Gesamtkonzept für den Neubau des Bürogebäudes der Stadtsiedlung Heilbronn, Urbanstraße 10.

Aus dem Konzept von Georg Mühleck:

Lebender Raum & Simulation, auch Lebensraum und -form, sogar Biosphäre: dieses Konzept stellt dem stabilen Material der Architektur, den Luft- oder Detailaufnahmen menschlicher Siedlungen, den biologischen Mikrokosmos und dessen Simulation gegenüber oder verbindet ihn damit.

Wie entsteht eine Stadt? Ist sie ein von Menschen geplantes Konstrukt, oder entsteht sie durch organisches Wachstum als individuelle Mutation über Jahrhunderte, Jahrtausende hinweg? In dieser Arbeitsreihe steht der Zellulare Automat für das organische Wachstum. Er ist angewandt auf existierende Stadtteil- und Häuserformen, baut beispielsweise Teile daraus ab und generiert aus diesem reduzierten Material nach seinen eigenen, programmierten Gesetzmäßigkeiten neue Formen, ist sozusagen ein zellulares Konservierungsmittel aus algorithmischen Bestandteilen. — Jede Stadt, jede Siedlung ist aus "Zellen" aufgebaut: Stadtteile, Straßenblocks, Häusergruppen, die Häuser an sich: Wohnungen, Zimmer. Wir dringen in stets kleiner werdende Bereiche, bis wir schließlich bei Zellbausteinen angekommen sind. Als Fundament dient hier also ein Konzept antiker Philosophie: die Korrespondenz zwischen Mikrokosmos und Makrokosmos; zudem die Theorien zeitgenössischer Physiker, die beschreiben, wie jedes Teilchen im Raum Informationen über den Zustand des gesamten Universums enthält.

LIFE SPACE & SIMULATION, Georg Mühleck
Overall art concept for the new office building of the Stadtsiedlung Heilbronn
Künstlerisches Gesamtkonzept für das Bürogebäude der Stadtsiedlung Heilbronn

Architects: Meister & Wittich, Stuttgart

Photos: Fotostudio Dieterich, Böblingen
georg@mybrain.s.bawue.de • georg@muhleck.info

Hintergrund-Informationen zu den Datagraphie-Ilfochromes
Verwendete Luftaufnahmen, Mikro-Organismen, Zellulare Automaten (CAs)

„Candy, Sandwich, Treasure Chest"
Hallenwand über 3 Stockwerke, 934 x 292 cm
Dumbbell-Häuserblock New York, 1900
Mikro-Bio: Kieselalge "Anomoeoneis vitrea"
Cellular Automata Simulation: rph-hrp-hp

„Flugzeit"
Aufzug in 3 Teilen (Glas)
Teil 1+3: Höhe: 190,3 cm Breite: 97,8 cm
Teil 2: Höhe: 190,3 cm Breite: 97,8 cm
Heilbronner Altstadt aus Zeppelin fotografiert, 1930
Mikro-Bio in Teil 3: Achnantes
Cellular Automata Simulation: hnr

„Reflexive Views" (Life Space #27)
Triptychon Fenster 278,7 x 355 cm
Innenstadt Heilbronn, 1971 (Hintergrund)
Altstadt Heilbronn (in Zellformen), 1924
Mikro-Bio: Stärkekörner der Kartoffelknolle
Cellular Automata Simulation (CAs): h-l-t

„Concept Diptych" (Life Space # 6)
Wandbild 267 x 185,4 cm
Marine City (Japan) Modell 1965
Mikro-Bio: Stauroneis phoenicenteron
CAs: r-fred-zlrhb/HN-CA: p

Life Space #15
15b (Türe) und #15a (3teiliges Wandbild)
#15b (Türblatt): Höhe: 203,5 cm Breite: 88,0 cm
#15a-1: Höhe: 64,8 cm Breite: 93,4 cm
#15a-2: Höhe: 275,0 cm Breite: 120,0 cm
#15a-3: Höhe: 275,0 cm Breite: 120,0 cm
Ziegeleipark Heilbronn 1994 / CAs: l-l-l

Türen:
#11 *Sontheim 1933 / CAs:lr-fred*
#15 *Ziegeleipark 1994 / CAs:l-l-l*
#18 *Heilbronner Hafen1974 / Taxus canadensis/ h*
#19 *Ziegeleipark 1997+1994 / CAs: lhr*
#23 *Baustelle Stadtsiedlung Heilbronn, Urbanstraße 1996 / CAs:pr-tf-r-tfh/ Phytoplankton/rtfh*
#25 *Zentrum Heilbronn1989; Mikro-Bio: Stärkekörner der Kartoffelknolle; / CAs: lh*
#26 *Rangierbahnhof Heilbronn 1976; Mikro-Bio: Stärkekörner Kartoffelknolle; / CAs: zb-trth*

„Gliders over Historical Course":
#22 Flurwand (3.OG)
"Gliders" wie Zellformation aus dem NLUKY-rule; hier Phytoplankton über historischem Ablauf.
Jedes Fenster im Einzelnen:
Heilbronner Innenstadt**:**
#22-1 *Erster Sozialer Wohnungsbau in Deutschland (1856 erbaut).*
#22-2 *Altstadt 1924.*
#22-3 *bis 6: Heilbronn 1964.*
Mikro: Phytoplankton / CAs: rtfh
Heilbronner Vororte:
#22-7+8 *Auf der Schanz, 1969*
#22-9 *Neckargartach, 1978*
#22-10 *Klingenberg, 1978*
#22-11 *Biberach, 1978*
#22-12 *Kirchhausen, 1983*
#22-13+14 *Frankenbach, 1985*
#22-15 *Sontheim, 1991*
Mikro: Phytoplankton / CAs: rtfh
vertikales Fensterband (4 Fenster) zeigt Heilbronner Industriegebiet um den Hafen:
#22-16 *Kanalhafen, 1933*
#22-17 *Industrieplatz, 1983*
#22-18 *Hafen, 1974*
#22-19 *Osthafen, 1983*

„1800-1923-1984"
3 separate Fenster im Erdgeschoß
Fenstergröße je 271,7 x 74,8 cm
#7 Heilbronner Altstadt um1800
Mikro-Bio: Lysozym / CAs: r
#8 Heilbronner Altstadt 1923
Mikro-Bio: Lysozym / CAs: r
#9 Heilbronner Altstadt 1984
Mikro-Bio: Lysozym / CAs: r

TEIL 2 wurde im Herbst 1998 realisiert:

„Crystal Treasure"
Foyer EG, 260 x 300,4 cm
Salzwerk Heilbronn 1957
Mikro-Bio: Salzkristall / CAs: h

„City Wall Alnus Ruba"
Wartebereich EG, 300 x 148 cm
Stadtplan Heilbronn 1834
Mikro-Bio: Alnus ruba (Erle) / CAs: h

„Cyclotella 1800"
Flur 1.OG, 270,7 x 496 cm
Heilbronn um 1800 (Modell Weingand)
Mikro-Bio: Cyclotella comta / CAs: hht-langton

„Auroville takes off Radiolarian"
(Flur im 1.OG, 270,4 x 300 cm
Auroville (Ashram-Stadt Modell), Indien
Mikro-Bio: Radiolarian
(Hexacontum asteracanthium
mit innerem Kieselskelett, planktonisch lebender Wurzelfüßer) Quelle: 'Terra Magica' / CAs: hl

„twist the rows"
Treppenhaus 1.OG, 270 x 226 cm
Saltaire (GB) Fabrikanlage + Reihenhaus-Siedlung
Mikro-Bio: Didinium verschlingt Paramecium
Cellular Automata Simulation (CAs): rhrtr, ruckzh

„Asterionella Canberra"
Treppenhaus 2.OG, 268,4 x 228,3 cm
Canberra (Australien)
Mikro-Bio: Asterionella formosa (Sternalge; Kieselalge des Planktons großer Seen)
Cellular Automata Simulation: hrh,thrthlz

„Global micro hotchpotch"
Flur 3.OG, Wandbild 303 x 520 + 163 x 159 cm
Agora (Athen) Rekonstruktion
Cape Town Crossroads squatter
Chicago buildings from Sears
Colcatal in Peru
Daimyo von Edo (Tokyo)
Grindelhochhäuser, Hamburg
Karlsruhe
Machu Picchu (Peru)
Palast Beijing
Paris (Turgot-Plan 1734-39)
Pergamon (Türkei) hellenistisch
Rom zur Kaiserzeit
Suzhou (China) 1229 Steindruck
Uruk (Sumerer) 3.Jahrt. v. Chr.
Vézelay (France)
Hintergrundfläche: Häuserteile aus Chicago
Micro-Bio: Melosira granulata
(Planktonassoziation mit sternförmiger Kolonie von Nitzschia actinastroides)
CAs: hr,hbhhh