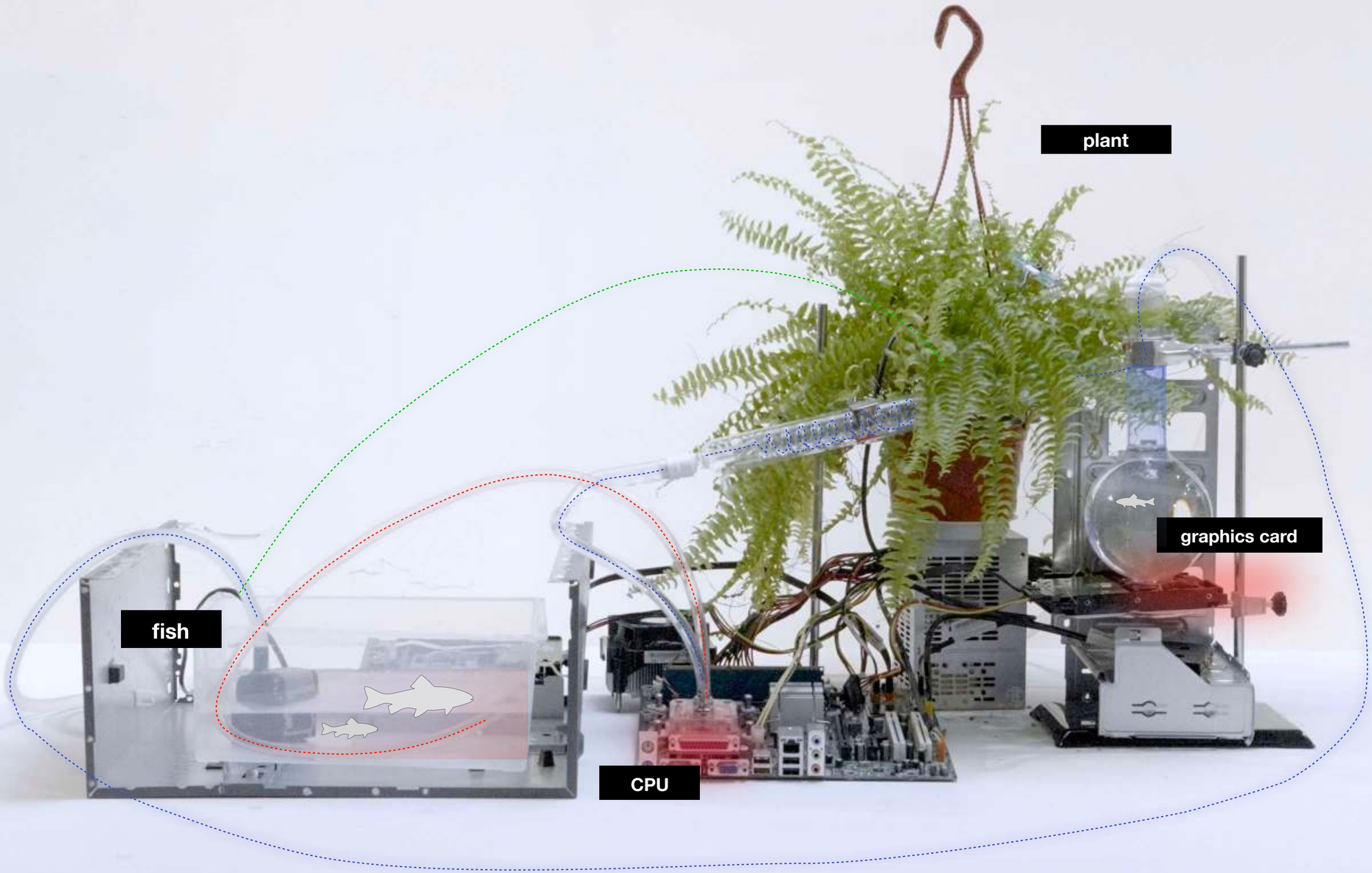
plant
graphics card
fish
CPU

Cyber sculpture

CPU, memory, motherboard, optical drive, power supply, and other input and output controllers and interfaces Disassembled mainframe

DIGITAL MEDIA STUDIO B137

Second semester
Synthesis of natural
October 2019

HUHUANZHE

The casing is split into three parts, the bracket, the side baffle and the rest

Cyber sculpture

Technology accelerates the era of artificial materials and organic material boundaries material uncertainty and mixing Yngve Holen&Nicolas Lamas

Second semester
Synthesis of natural
October 2019

HUHUANZHE

Becoming animal,Nicolas Lamas, ©
– curated by Borbála SoósPetra Feriancová &
Nicolás Lamas
16 May until 30 June2018

1102
cold water cycle, symbiosis of plants and fish and mainframe
Technical test 1

Distillation flask, condenser, water-cooled head, green plant, soft tube, water pump, CPU, memory, motherboard, optical drive, power supply, and other input and output controllers and interfaces

Cyber sculpture


9/26/2018 The Socialist Origins of Big Data | The New Yorker

THE NEW YORKER

THE PLANNING MACHINE

Project Cybersyn and the origins of the Big Data nation.

By Evgeny Morozov

In June, 1972, Ángel Parra, Chile's leading folksinger, wrote a song titled "Litany for a Computer and a Baby About to Be Born." Computers are like children, he sang, and Chilean bureaucrats must not abandon them. The song was prompted by a visit to Santiago from a British consultant who, with his ample beard and burly physique, reminded Parra of Santa Claus—a Santa bearing a "hidden gift, cybernetics."

The consultant, Stafford Beer, had been brought in by Chile's top planners to help guide the country down what Salvador Allende, its democratically elected Marxist leader, was calling "the Chilean road to socialism." Beer was a leading theorist of cybernetics—a discipline born of midcentury efforts to understand the role of communication in controlling social, biological, and technical systems. Chile's government had a lot to control: Allende, who took office in November of 1970, had swiftly nationalized the country's key industries, and he promised "worker participation" in the planning process. Beer's mission was to deliver a hypermodern information system that would make this possible, and so bring socialism into the computer age. The system he devised had a gleaming, sci-fi name: Project Cybersyn.

Beer was an unlikely savior for socialism. He had served as an executive with United Steel and worked as a development director for the International Publishing Corporation (then one of the largest media companies in the world), and he ran a lucrative consulting practice. He had a lavish life style, complete with a Rolls-Royce and a grand house in Surrey, which was fitted out with a remote-controlled waterfall in the dining room and a glass mosaic with a pattern based on the Fibonacci series. To convince workers that cybernetics in the service of the command economy could offer the best of socialism, a certain amount of reassurance was in order. In addition to folk music, there were plans for cybernetic-themed murals in the factories, and for instructional cartoons and movies. Mistrust remained. "CHILE RUN BY COMPUTER," a January, 1973, headline in the *Observer* announced, shaping the reception of Beer's plan in Britain.

At the center of Project Cybersyn (for "cybernetics synergy") was the Operations Room, where cybernetically sound decisions about the economy were to be made. Those seated in the op room would review critical highlights—helpfully summarized with up and down arrows—from a real-time feed of factory data from around the country. The prototype op room was built in downtown Santiago, in the interior courtyard of a building occupied by the national telecom company. It was a hexagonal space, thirty-three feet in diameter, accommodating seven white fibreglass swivel chairs with orange cushions

https://www.newyorker.com/magazine/2014/10/13/planning-machine 1/10

Plant
Systematic self-education deviation and collapse

/More, too much, but never enough

Mainframe
/Simplified and highly abstract "environment"
/Invisible conversion of energy
/Between frames,Subject and object

fish
/A building within a building
/Dialectical critical point

Cyber sculpture

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Plant
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Abstract Habitats: Installations of Coexistence and Coevolution

斯文·鲁迪肯谈共存与协同进化的建立

SYNTHETIC NATURE.21.SEP.2019

Holler and Trockel对镜面玻璃的使用强调了人类观众自身在情境中的暗示

members of two species. The concrete construction contained two spaces divided by a large one-way mirrored glass window, through which Documenta visitors could see the pigs, while the latter saw only their own reflections.[8] The communication between the two species was thus reduced to a (one-sided) scopic relation, with the senses other than sight being largely canceled out. Yet while Höller and Trockel thus seemed to duplicate the objectification of animals (i.e., reduction to image-objects studied and manipulated by a gazing human subject), the "human" half of the installation contained a concrete incline on which people could recline and watch the pigs more or less from the same height. The vertical biped became horizontal, or at least diagonal.

Furthermore, the pigs were Bentheimer Landrasse, an archaic breed no longer in vogue in today's agribusiness. Yet these impressive, speckled swine were clearly not "nature." Rather, they were an ancient hybrid, a relic of a historical stage of the human-animal dialectic.[9] In their introductory text, the artists question the legitimacy of "all talk of an 'objective' limit (animal as object)," asking an extended series of questions about whether the killing of Scottish sheep with human genomes is permissible, about different degrees and kinds of consciousness, and about the interconnections between the subjugation of nonhuman beings and nonruling classes in various societies.[10] This discourse has affinities with contemporary reconsiderations, by Michel Serres, Bruno Latour, and many in their wake, of the subject-object dichotomy, as well as the culture-nature dichotomy. However, to state that Höller and Trockel's work replaces modern "subject-object narcissisms" with a celebration of the hybrid or the cyborg would be to oversimplify both that work and intellectual history.[11]

While many theories of cyborgs and hybrids explicitly or implicitly critique Hegelian as well as Marxian versions of the dialectic as being rigged in favor of the triumphant subject (be it Hegelian spirit or the Marxist class subject), John Bellamy Foster recalls Karl Marx's engagement with the natural world. The turn Western Marxism took in the 1920s with Georg Lukács's and Karl Korsch's revolt against undialectical positivism in recent forms of Marxism and their rejection of Friedrich Engels's ambitious but flawed attempt to think a "dialectic of nature"

Abstract Habitats: Installations of Coexistence and Coevolution

斯文·鲁迪肯谈共存与协同进化的建立

SYNTHETIC NATURE.21.SEP.2019

Roel Van Duijn

Van Duijn宣称控制论是辩证法的延伸，反馈机制要么趋向于稳定/稳态，要么在某一时刻创造一个剧变，一个辩证的临界点。

Left: Roel van Duijn and car with roof garden, 1969.

Opposite: Bik Van der Pol. *Catching Some Air*, 2000. Details from larger series. Two drawings showing Hans Haacke's *Ten Turtles Set Free* and Walt Disney with audio-animatronic dinosaurs for the Ford Magic Skyway attraction at the 1964 World's Fair.

with small-scale and local production of food and most goods.

A major enemy for the Kabouters was the automobile, and while the ultimate goal was to make Amsterdam car-free, in 1969 van Duijn launched his plan to equip cars with small roof gardens, turning them into mobile green lungs. He presented the plan on Dutch television on October 14, 1969, attempting to use the medium to his advantage.[37] Even though van Duijn was well aware that a TV appearance itself would not change anything, with "ecological problems" becoming "content" like all the rest, he attempted to short-circuit the media ecology with "natural" ecology precisely by presenting a possible—though not entirely plausible—plan for action. Neither he nor any of his allies found much to agree with in Stewart Brand's all-American declaration that "The health of [the ecosystem] is forward—systemic self-education which feeds on constant imperfection."[38] The Dutch ex-Provos were far more skeptical of technology than Brand and his allies, at times to a fault; rather than space colonization, van Duijn's ideal was organic farming in the countryside.[39]

Haacke's artistic appropriation of systems theory and cybernetics was likewise part of the epistemological struggle over knowledge. Burnham, and Haacke in his wake, followed Ludwig von Bertalanffy in regarding systems theory as the master discipline and cybernetics as one specific if important form of "general systems theory" (dealing with communication).[40] The success of systems theory in the 1960s and the rise of the ecological movement toward the end of the decade went hand in hand with the popularization of the term *ecosystem*, which had been coined by Arthur Tansley and describes a concept that puts a premium on stability and equilibrium.[41] Like "nature," the notion of ecosystem was thus compatible with essentialist views of an unchanging and stable natural world. However, Gregory Bateson's "systems ecology" provided an opening by not only introducing the concept of a mental ecology but by stressing the role of technology in the ecosystem.[42] In the process, Bateson helped to speed up the transformation of an old "world of stable identity, conscious subjects and discreet objects into one of interaction, patterns, and networks," with all the ambiguous consequences this has entailed for subjectivation, power, and control.[43]

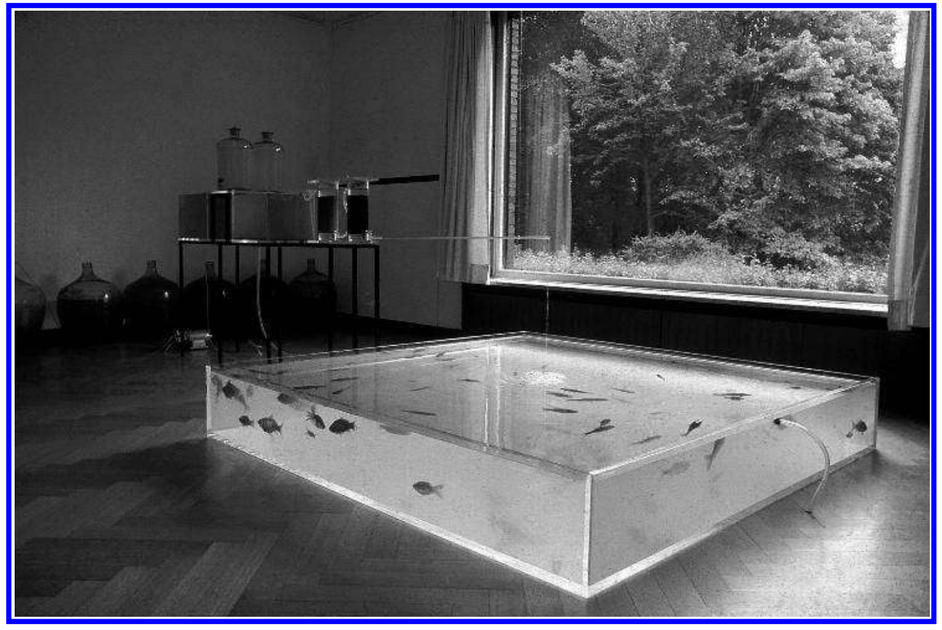
Some of Haacke's pieces appear to deal straightforwardly with "natural" ecology, such as *Ten Turtles Set Free* (1970), for which Haacke released ten tortoises bought from a pet store in the countryside of Saint Paul de Vence, home of the Fondation Maeght. With its release of abstracted animals back into nature, *Ten Turtles* is in a sense the opposite of *All Systems Go!*—a project for which Haacke

THEORY

Abstract Habitats: Installations of Coexistence and Coevolution

斯文·鲁迪肯谈共存与协同进化的建立

SYNTHETIC NATURE.21.SEP.2019



[Krefeld Sewage Triptych] untreated sewage that went into the Rhine

该作品承认并强调了系统之间的交叉和干扰，抵消了对自给自足和自给自足的系统或结构的迷恋，这个项目引发了媒体对城市在河流污染中所扮演的角色的调查，这是一个潜在环境影响的社会反馈的例子。49 .用Felix Guattari的话说，这里所发生的是“在生态系统、机械圈、社会和个人宇宙之间”的横向联系的形成

thing 000773 University of Wageningen by Ananda Chakrabarty

技术科学的抽象与法律的抽象

SYNTHETIC NATURE.21.SEP.2019

几千年来，印度人一直用牛粪浆中的细菌来净化废物，比如石油泄漏。1971年，纽约通用电气公司(General Electric Company)的印度微生物学家阿南达查克拉巴蒂(Ananda Chakrabarty)从四种不同的假单胞菌属细菌中提取脱氧核糖核酸或DNA质粒，并将它们插入一株菌株中。查克拉巴蒂通过基因转移培养出了他希望能分解原油多种成分的细菌。这些细菌将被用来清理漏油。1972年，在与同事查克拉巴蒂交谈之后，他向通用电气公司提出了一项专利申请当Chakrabarty的专利申请被驳回时，因为活的生物体被视为“自然产物”而不能申请专利，他上诉并胜诉，使他的假单胞菌成为第一个获得专利的生物体

即技术科学的抽象与法律的抽象是密不可分的。此外，两者都是高度具体的抽象概念:它们塑造我们的现实，把我们变成它们的对象。

在这个准法律或金属法律框架内，细菌不仅仅是人类主体所支配的一个物体。假单胞菌通过媒介的重构，获得了一种媒介，使其成为准客体，并有可能成为准主体。

active engagement.

In contrast to works by Höller and Trockel or Huyghe, Agency's practice appears to lack the element of sharing a space and of reciprocity. The petri dish was in the same space as the viewers and participants, but bacteria have a rather different kind of presence than chickens or pigs. Nonetheless: within this paralegal or metalegal framework the bacterium was more than an object lorded over by the human subject. As reframed by Agency, *Pseudomonas* attained an agency that turned it into a quasi-object and potentially into a quasi-subject.[74] This is not to say that the work proposes a flat ontology in which all distinctions are blurred: a night in which all cats are grey. Rather, we are dealing with highly unstable oppositions. If the subject—or, if subjectivation—presupposes movement and self-transformation, an ex-static becoming-other, then such subjecthood may ultimately reside most of all with the corporations that employ the Chakrabartys of this world. After all, with them lies the power to objectify others: from bacteria, rice, and pigs to people who—as producers, as consumers, or simply as obstacles or human refuse—become sub-subjects.

The *Pseudomonas* case makes explicit what remains relatively implicit in most of the works discussed in this article: the need for a global perspective that goes beyond abstract declarations and engages with the specifics of ongoing primitive accumulation, of frequently violent processes of abstraction and extraction in South America, Africa, or Asia. As Agency stresses, the detoxifying properties of *Pseudomonas* have been used in India for thousands of years through cow dung slurry or *gomaya* (“when sprinkled over oil spillage, the bacteria living inside cow dung soak and degrade crude oil”).[75] The commons continue to be mined ever more thoroughly, ever more fundamentally. But the dynamic developments of biocapitalism are bound up with an ongoing and accelerating ecocide. Human and nonhuman (or “natural”) history are rapidly running out of time, out of future. An assembly by Agency or a *House for Pigs and People* does not change this. But with pigs, chickens, bacteria, architectural interventions, and staged situations and debates, these works make the abstract problem appear concretely and aesthetically.

THEORY

American post-modern feminist anthropologist, defines "cyborg"

美国后现代女权主义人类学者唐娜·哈拉维定义赛博格

SYNTHETIC NATURE.21.SEP.2019

Donna Haraway, American post-modern feminist anthropologist, defines "cyborg"

[Donna Haraway]

“一个控制有机体，一个机器与生物体的结合体，一个社会现实的创造物，同时也是一个虚构的创造物……是想象与物质现实的浓缩形象，既是虚拟的事物，也是活生生的经验。“

THEORY

Mark Jarzombek on Hans Haacke's "Condensation Cube:

马克·雅佐姆贝克谈汉斯·哈克

SYNTHETIC NATURE.21.SEP.2019

HAACKE'S CONDENSATION CUBE:

THE MACHINE IN THE BOX AND THE TRAVAILS OF ARCHITECTURE

Mark Jarzombek

Hans Haacke, Condensation Cube, 1963-65.

Hans Haacke's Condensation Cube (1963-65) is a hermetically sealed, clear acrylic plexiglass box, thirty centimeters on the side that holds about one centimeter or so of water.[2] Condensation collects against the inner surface of the plexiglass forming vertical streaks on the inside. How the condensation is created can be explained in the following way: Air can hold only a limited amount of water vapor and when that limit or dew point—a law of nature, which applies to all bodies of air all over the world—is reached, condensation occurs. In almost all art museums, the temperature is set at a cool 65 degrees Fahrenheit, which means that at a relative humidity of about 45 percent (the standard in most museums), the dew point is at 42 degrees. Because plexiglass is a bad thermal insulator, the air temperature inside the Cube is the same as the temperature on the outside, namely 65 degrees. But since the humidity is close to 100 percent, the dew point is much higher, and is, in fact, about 65 degrees, precisely the temperature of the plexiglass.

I will argue that the Cube sets in play a rather complex game of illusions between the museum and the architecture that defines its space. This revolves not only around the word "cube," but also around the status of condensation as a cultural construct.

The story begins in the mid-nineteenth century when, with the advent of mechanized, ducted heating systems in multi-floor apartment buildings, it was discovered that condensation appeared neither on the outside nor on the inside surfaces of the building, but within the wall itself. There it would lurk, creating mold and rot. Condensation endangered the life span of these new buildings and thus, of course, the capital investment that they represented. Though the problem was first noticed and studied by the French who were building thousands of apartments in Hausmann's Paris, it was in the northern climate of Berlin where condensation proved to be particularly vexing. It was thus natural that among the first scientists to address the problem was Adolf Wilhelm Keim (1851-1913), whose family name, by the way, means 'germ.'[3] He argued that though dampness is brought into architecture because of the capillary nature of stone and brick, that in itself is not the problem. Stones and bricks had survived relatively well even in damp climates. What happens is that the dry heat on the inside sucks the moisture deeper into the building where it no longer dries out in the summer. In the lingering encounter with lime and cement, moisture creates corrosive chemical discharges that lead to what Keim called Mauerfrass, literally a "wall-eating" disease that was, in Keim's mind's eye, similar to cancer eating at the tissue of a living body.

To protect against Mauerfrass, Keim argued that the wall needed to be ventilated from within; in other words a flow of air, the positive, would offset the flow of water, the negative. The wall, therefore, needed to be separated into two component layers, a structural wall and a type of skin or internal surface, composed of thin brick tiles separated from the structural wall by about an inch, in which space air could flow. To keep moisture in that air corridor from entering through the bricks, Keim added that it was "beneficial to give the inner surface of the tiles a coat of asphalt."[4] This would leave the surface facing the room permanently dry so that it could be coated with plaster, which can then be painted or papered. Wall paper, which had become common in bourgeois houses, and which had also become quite costly, was now safe from the damp. Needless to say, Keim's solution has been used in architecture ever since, except that by the early twentieth century, tar paper was preferred and by the mid twentieth century special types of plastic sheathing like Tyvek, known to every home-builder in the United States, became the norm.

In Keim's world, architecture, in facing the crisis of industrialization, needed to be rethought from the inside out without having to give up its unity. His metaphor was thus appropriately biological. Structure had to be separated from skin by a type of two-dimensional lung. The structure could then do the heavy lifting, the interior wall could work as backdrop for the decorative embellishments in the room, and the lungs of the newly devised body could guarantee the whole a long and healthy life. And yet, if there was a moment where we see the first true separation of interior design from architecture, and architecture from environmental engineering, it was

Zoodram (2011) aquarium-based Zoodram Pierre Huyghe

人类的观察者在两个框架之间

SYNTHETIC NATURE.21.SEP.2019

对于螃蟹来说，Umgebung很大程度上是由鱼缸里的东西构成的，而鱼缸外的运动可能是一种背景噪音。对于人类观众来说，水族馆是艺术空间的一部分，是他们可以来回移动的元素之一，而不是让自己沉浸在水箱中。水族馆是艺术空间框架装置中的第二个框架装置。人类的观察者在两个框架之间。

THEORY

are you really sure that a floor can’t also be a ceiling? (2000) Bik Van der Pol

高度视觉和内脏的方式强调了人类的含义

SYNTHETIC NATURE.21.SEP.2019

这个为蝴蝶和人类建造的房子就像一个舞台布景，玻璃幕墙像薄膜一样对光线透明，同时保护室内的小气候。它超越了20世纪60年代的系统美学，以高度视觉和内脏的方式强调了人类的含义。

这些作品与其说是试图呈现一个特定的自然或生物系统的工作模型，不如说是为了使相互依赖和不稳定性变得可见和合理。在这一点上，它们既是具体的组件，又是一个系统，以实现更一般和更复杂的系统相互关系。

THEORY

The problem that the work discusses

抽象–等级–多个系统之间

SYNTHETIC NATURE.21.SEP.2019

Jack Burnham

[Bird Shot]

将自然抽象

[Pigs and People]

杂交育种：资本主义对生物的具体改造

情景暗示生产力下的等级分化，主客体

准客体和潜在主体的非线性辩证

[Chickens Hatching]

系统的不同框架与反馈

[SEEK]

控制论与计算机实时反馈

[Roel van Duijn]

辩证的临界点：稳态/剧变

主体 稳定到变化

[untreated sewage]

系统之间的交叉和干扰

多个系统之间的联系

后期的实践在结构上更注重自然与社会的同源性和共通性

THEORY

The problem that the work discusses

不稳定–主客体–主客观

SYNTHETIC NATURE.21.SEP.2019

Paul Ehrlich

共同进化，系统动态的自我完善

[are you really sure that a floor can’t also be a ceiling?]

系统的不稳定与相互依赖，视觉化的舞台情境

[Umwelt]

各等级间物种的同居与分离，感知与行动间的反馈，协同进化

客观系统中主体的辩证关系，我们处于一个主观世界中

[Zoodram]

两个主体，两个框架，人类的位置

环境 主观/客观?

[Video Fish]

次客观世界（心理生态）可被彻底改变

[000773]

活体专利（客体？）技术与法律

THEORY

Systematic self-education deviation and collapse

系统的自我教育偏差与崩溃——废墟

SYNTHETIC NATURE.21.SEP.2019

More, too much, but never enough

更多、太多、但永远不够用

Simplified and highly abstract "environment"

简化并高度抽象的“环境”

Invisible conversion of energy

不可见的能量转化

Between frames,Subject and object

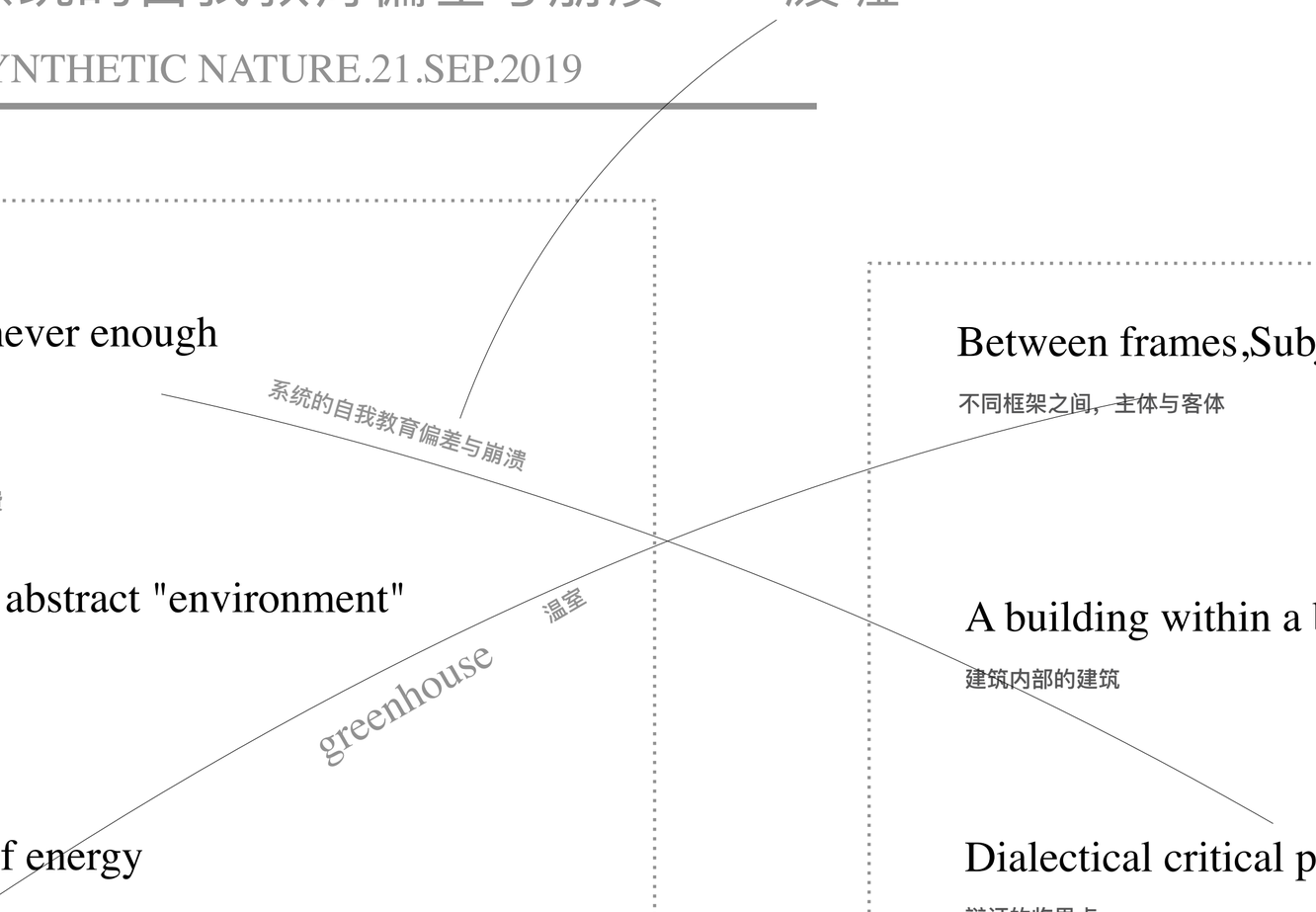
不同框架之间，主体与客体

A building within a building

建筑内部的建筑

Dialectical critical point

辩证的临界点



dynamic devel- opments of biocapitalism accelerating eco- cide.

人类和非人类（自然）的历史正在走向尽头

SYNTHETIC NATURE.21.SEP.2019

如果主体——以运动和自我转化为前提，成为一个外在的“他者”，那么这种主体就有可能成为“他者”。毕竟，它们具有客观化他人的能力:从细菌、大米和猪，到人——作为生产者、消费者，或者仅仅作为障碍或人类的拒绝者——成为次要主体。

需要一个全球视角超越抽象的声明和与持续的原始积累的细节,经常暴力过程的抽象和extrac,在南美、非洲、亚洲。生物资本主义的动态发展与不断发展和加速的生态环境密切相关。人类和非人类(或“自然”)的历史正在迅速地耗尽时间，耗尽未来。由机构组织的集会或为猪和人建造的房屋不会改变这一点。但在猪、鸡、细菌、建筑干预、舞台情境和辩论中，这些作品使抽象的问题在整体上和美学上呈现出来。