Mary Ellen Carroll Peter Coffin John Duff Allen Glatter Haus-Rucker-Co Erwin Heerich Brian O'Connell Al Taylor Virginia Inés Vergara

MODEL THEORIES

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Foreword

Mathematician Wilfred Hodges reminds us that *model* comes from the late Latin word *modellus*, which is a measuring device. "Often a device that measures out a quantity of a substance also imposes a form on the substance... So, 'model' comes to mean an object in hand that expresses the design of some other objects in the world."¹

We build models for different reasons. Some are patterns for future constructions. Others take form to organize our observations of the world. And then there are abstract models, models of meaning. The problem for model builders, whether they are artists, architects, scientists, or mathematicians is the problem of interpretation.

With *Model Theories* we aim to explore the capacity of artworks to function as models, from the perspective of this variety of occupations. The works on view raise the following questions: How do art objects involve themselves in their own interpretation? How does a model give shape to the phenomena it describes? How do art works convey propositions without an explicit formal language?

One consequence of engaging with something as a model is the tendency to see component parts and make associations between parts. The artists in the show are united in that their work defines such a (visual) system, which we like to think of as a collection of axioms. Such ground rules, whether implied or explicit, serve less to constrain the results than to open the playing field.

Helena Kauppila and Philip Ording

Model Theory

Roman Kossak

When you see a mathematician at work, most likely she will be drawing a rather curious diagram, covering sheets of paper with formulas involving exotic characters, or perhaps she will be using a computer to inspect even more elaborate constructions. What she wants to find out is usually not the particular features of a concrete geometric configuration or a particular solution of some special equation. She is looking for a pattern, a common property that applies to a more general class of problems. The most important outcome is general knowledge of properties of whole classes of objects and relations between them—what mathematicians call structure. Whether the objects of study are called numbers, triangles, groups, rings, or topological spaces, each structure comes equipped with operations that transform elements of the structure to other elements, or relations that order those elements in various ways. How do we study those structures? An essential problem is that the structures we deal with are infinite, so one cannot learn anything about them by direct inspection. (The same applies to finite structures if they are large enough.) Properties of structures must be somehow deduced.

But how does one deduce truths about infinite structures? In general, by any acceptable means, and the meaning of "acceptable" evolves in time. Modern methods and standards of rigor were established in mathematics only about 100 years ago. In particular, we now have a formal language, called the language of first-order logic, in which statements about mathematical structures can be formalized. Moreover, we have formal proof systems in which proofs can be written. This does not mean that mathematics is done formally. Mathematicians still think and write proofs in informal, intuitive ways, but now we have the means to formalize all such proofs and to check their correctness step-by-step if necessary. Model theory is a relatively young branch of mathematics which explores relationships between the tame syntax (i.e. a simple and well-understood formal language) and the wild semantics, which allows the interpretation of the language in terms of the mathematical structures populating the fantastically diverse universe of modern mathematics.

To build a structure one begins with a collection of elements. Those elements are exactly what they are, just individual elements; we can tell them apart, but there is nothing more that we can say about them. Then we define a structure by identifying relations between elements. Let us look at three structures involving numbers. The counting numbers 0, 1, 2... form an infinite collection which is denoted by ω . The simplest structure on ω is the collection ω itself, without any relations between individual numbers. It does not matter at all that the elements are numbers. As a structure, it is not different from any infinite collection of objects as long as we disregard all possible relations between them. A more complex structure is (ω , <) made of ω and the single relation "less than," denoted by <.

This structure has a least element, and every element has an immediate successor. Again, the fact that the elements are numbers is almost irrelevant. Any set of elements ordered

the same way is an isomorphic copy of $(\omega, <)$. Two other structures we will consider are $(\omega, +)$ and $(\omega, +, \times)$ where + and × are addition and multiplication considered as relations: numbers *a*, *b*, and *c* are related by addition if a + b = c, and similarly for multiplication. Here it is essential that the elements of these structures are numbers.

Even though the structures in our examples are infinite, we think of them as completely given. This means that not only the infinite set of elements is somehow given to us in its totality, but all the relations between the elements as well. Speaking metaphorically, those relations are the features of the structure that we "see" directly. There are other features though that we can uncover via what I would like to call "logical seeing." If I see A and I see B, then I also see A and B. If I see the part of the structure given by a description A, I also see its complement, which is given by the description **not** *A*. More interestingly, such visibility interpretations can be also given to quantifiers. For example, a relation R between pairs of elements can be seen as a two dimensional collection of (ordered) pairs of elements (x, y) such that x is related to y by R. Then, the logical formula "there is y such that x is related to y by R" describes the one dimensional collection of elements x, that in geometric terms defines the *projection* of *R* onto the first coordinate. If I see *R*, I also (logically) see its projection.

Now, the task is to find out what other sets (subcollections of the elements of the structure) and relations can be *defined* by formulas involving the given relations, logical connectives, and quantifiers. We call such relations definable. The three structures described above differ much in this respect. One can show that the sets definable in (ω , <) are either finite, or co-finite (meaning that their complements are finite). It is not so in the structure (ω , +), in which, for example, the collection of even numbers is defined by the formula "**there is** *y* such that *y* + *y* = *x*." In this sense, (ω , +) is richer than (ω , <). Nevertheless, both structures are relatively simple; a general form of the definable sets can be described and it is not complicated. One can say that we understand these structures completely. We logically see them in their totality.

By contrast, $(\omega, +, \times)$ may very well be the most complex structure known to mankind. Any collection of numbers that can be obtained as a result of running a computer pro-

gram (possibly through infinitely many steps) has a definition in the first-order language of + and \times . Any picture that can be displayed on a pixelated computer monitor, any DVD movie (as a record of a sequence of pixelated images) has such a formal definition. It gets worse. There are collections of numbers that cannot be generated in an algorithmic way by a computer yet are definable in $(\omega, +, \times)$. In fact, there is a whole infinite hierarchy of such collections each much more complex, in a precise sense, than the previous. But here is an interesting twist. Another basic structure of mathematics is $(\mathbf{R}, +, \times)$, where **R** is the collection of all real numbers (i.e. all numbers that can be represented as distances from 0 on the infinite geometric line). It turns out that the only definable subsets of **R** are finite unions of intervals (line segments). So, in contrast with the wild behavior of $(\omega, +, \times)$, the structure $(\mathbf{R}, +, \times)$ is very tame.

The task of model theory is to provide tools based on mathematical logic for classifying and constructing structures. It has been quite successful, but can the model theoretic approach be of use outside mathematics? Could aspects of it be incorporated into the discourse on art and contemporary art in particular? Certainly not in any direct way, but if anything like that is possible at all, a good test would be to try to develop a formal language to capture, at least in fragments, the intriguing structures of the works appearing in the exhibition *Model Theories*. Could one identify the elements of the artworks and the meaningful relations between them? There are obvious candidates: geometric components, spatial arrangements, shapes, colors. But there may be some less obvious elements, such as references to other works or to symbols and meanings in general. Could "logical seeing" be applied? Could we use some formal criteria separating works with respect to their level of complexity? Could "logical" seeing reveal what is not immediately given in direct contact with an object of art? The experience of model theory seems to indicate that we can learn much from the formality of ands, ors and nots, not to mention the expressive power of quantifiers. It can open one's eyes to salient features of structures that would remain invisible without the formal approach. Perhaps, in a dialog between disciplines, a model theoretic approach to (elements of) art may offer new insights.



Mary Ellen Carroll

How to make painting disappear

"Abstract patterns were taken from the interior of safety/security envelopes from financial/investment firms, as capital is a form of camouflage or security. The series was started in 2001 with patterns drawn from US-based institutions and focusing on color. This 2012 series is based on the pattern and its ocular effect, and they are all UK-based institutions. (For the series from 2001, all of the institutions are no longer in business; i.e., Wachovia, Merrill Lynch, Bear Sterns, etc.)

"As Walter Benjamin said, all art should be as objective as possible. The project *How to make painting disappear* attempts to make paintings that are nonpaintings—as mechanical in their creation as possible. The effect is achieved in part by embedding the image in the material itself, with enamels that penetrate the Formica's surface, and in part by the choices of the pattern. The color combinations, selected by both the artist and the print studio, take advantage of color blindness, afterimage, distortion, and vibration. No two paintings produced according to the instructions will ever be the same. While operating according to objective rules, the work also engages subjectivity in that the manufacturer determines where the pattern stops, and the color combination creates an interior, ocular phenomenon for the viewer."²

100 German Men

"The title creates the literal and conceptual border where language as the unmoveable feast frames or perpetuates identification systems. This title was the beginning for a work in which over 1,000 men were asked in Germany and America the same question. Every man (there were no distinctions made in the selection process) that I encountered from a starting point on the street was approached in Berlin and Manhattan and asked where he came from. Their picture was taken if they gave the correct response. The men are printed in pairs that were determined by a random pairing of the numbers, 1-100."³

Right: MARY ELLEN CARROLL How to make painting disappear (In the UK-Garrison Investment Analysis) 2012 Birch plywood, formica, gold resin, oil paint, silkscreen, and hand painting 36 x 36 in

Overleaf: Excerpt from 100 German Men (New York: Presse Endémique,1998)



DIETRICH SCHAFSTALL



PETER MEIER

Peter Coffin

"I often throw around the word 'model' in talking about my own artwork. I'd like to get the idea across that the artwork is just a thing meant to catalyze an art experience. I'm interested in how art helps to shape ideas, and, in this way, functions the way models do." *April 2012*

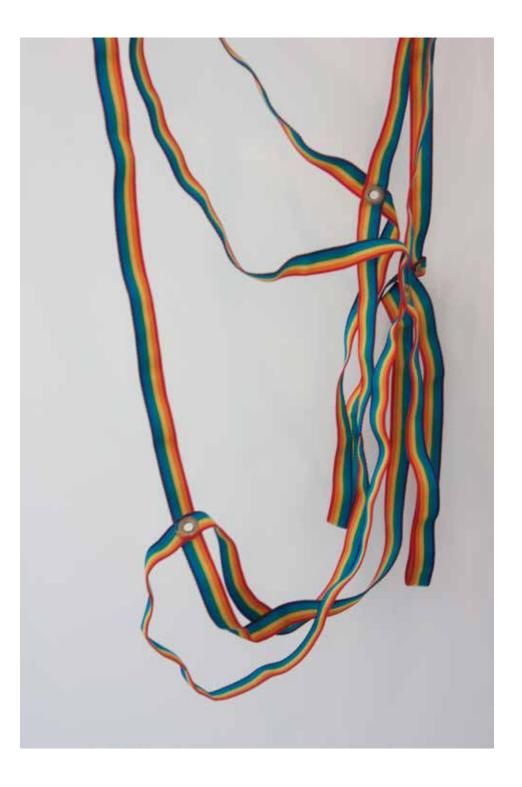
"At the time I made [the grommet pieces] I wasn't thinking about a finished artwork. I was interested in playing with them while thinking about space. The ribbon piece, like the white cloth with grommets, is a thing that can be collapsed—stuffed into a pocket or a bag and taken along somewhere. It is meant to be played with in space. The fact that both pieces are meant to be experimented with played with, and that the works themselves aren't meant to prescribe an interpretation or a particular experience interests me.

"Some things came to mind while making both pieces, but these aren't meant to explain the works. The pattern of the grommets on the white cloth appear random and not ordered as they are on the perimeter. They're random-seeming, like stars on the surface of the sky at different depths. With the grommets fixed in the cloth I could reposition them on an even 3 x 3 grid of 9 nails in the wall and pretend that I was folding space. I could imagine new three-dimensional representations of the sky in the ways I positioned the stars and reshaped the space—as if I was simultaneously changing my perspective of it. It became a liberating exercise to pretend I was changing space while shifting my point of view around some fixed points in the sky among points I had repositioned.

"My interest in lines that are used to delineate space or lines that connect points in space was what lead me to begin playing with the basic shape of this piece made from 3 intersecting rings of ribbon. I wanted to look at the shape that was implied by the outline of ribbon in its expanded form and its collapsed form. I was interested in manipulating space in the same way I had with the cloth and grommets that I repositioned on the grid of nails in order to imagine the space differently and from different perspectives—what you do in topology." June 2012

Excerpts from email correspondence with the curators.





PETER COFFIN Untitled 1998 Nylon strap and grommets Dimensions variable





Left: PETER COFFIN Untitled 1998 Cloth and grommets Dimensions variable Above: JOHN DUFF Ten Objects Five Materials in Unique Combination 2009 Plaster, resin, wax, cement, rubber, and steel Dimensions variable

John Duff

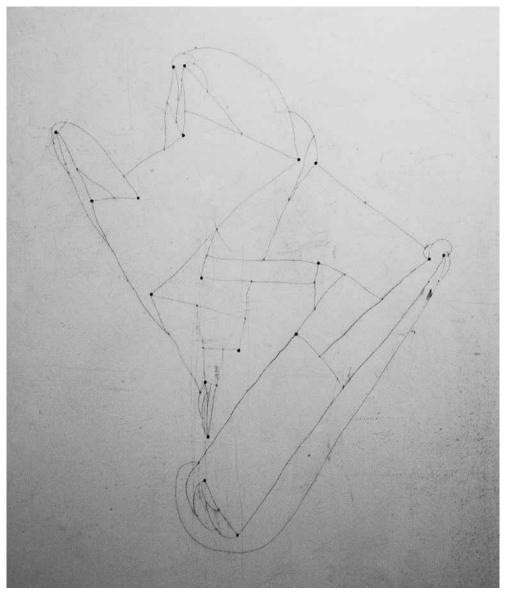
Gaming Ursa Major

"Connect two dots and put a dot anywhere along the line.

Now this new dot is in play.

Each dot must join three lines, and no lines cross."⁴

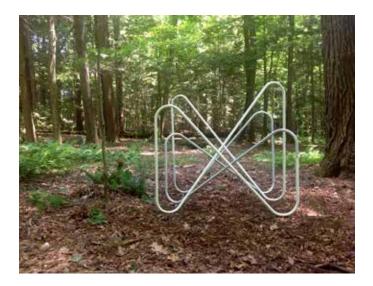




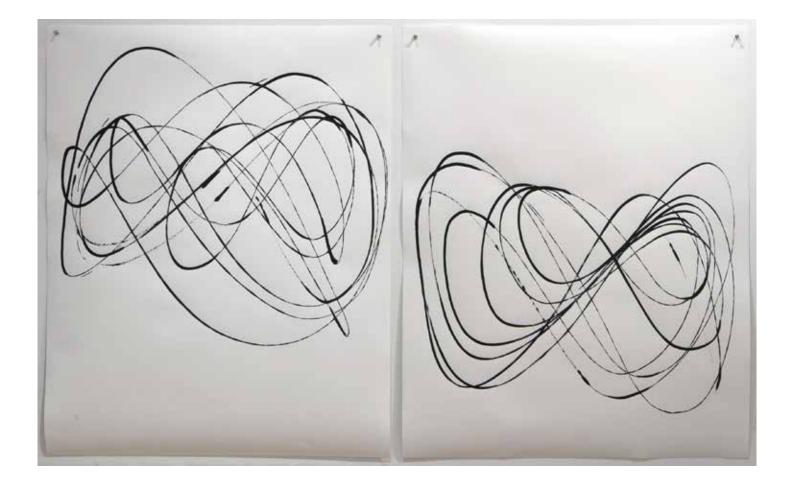
JOHN DUFF Gaming Ursa Major (Pauline Kael Never Sees a Movie Twice) 2006 Ink and pencil directly on wall Dimensions variable

Allen Glatter

"About five years ago I was in a bookstore in Los Angeles, and I found a book that described this device called a harmonograph that was popular in the Victorian era. It was a form of entertainment, and it was used to make drawings with pendulums. I just found it absolutely fascinating, and I made one. You would recognize the kind of drawings if you saw them. They are kind of quasi-scientific, and look like an x-ray of a seashell. I just thought there was really something interesting there, so I started playing around with it and making some drawings. Then I realized that these drawings could potentially describe space, and be a kind of blueprint for making sculpture. The way the harmonograph works is like an oscilloscope. You can change the X or Y frequency, which is basically how fast the pendulum is swinging in the X or Y direction. I really didn't want to get too hung up on the pendulum. The question became what is the Z-axis. At the time I was talking with a friend of mine, who's a mathematician, and we just went back and forth about the possibilities. We imagined that, instead of making a drawing that exists on a flat plane, the drawing actually moves through space as I am making it. Once we pictured Z as time, it opened up a whole other way of thinking about the drawings. Still, I look to the drawings in terms of the quality of the line. The sculptures really, more than anything else, are about the quality of the line, how fast it is, the speed, the rate, the radius, these are all things that are really directly informed from making and looking critically at the drawings. For me, what's rewarding about this problem is that at each step you have to reassess the goal and reassess the criteria to move forward."⁵



ALLEN GLATTER *That Which* 2011 Powder-coated aluminum 60 x 60 x 60 in



ALLEN GLATTER Untitled 4 and 5 From Untitled 1–6 2012 Six individual drawings, ink on paper 32 x 40 in, each



ALLEN GLATTER Walk On By 2011 Powder-coated aluminum 60 x 72 x 72 in



HAUS-RUCKER-CO *Klima 2, Atemzone (Climate 2, Breathing Zone)* 1971 Pencil, colored pencil, and collage on board 18 1/2 x 25 1/4 in

Haus-Rucker-Co

Air Unit (Projekt documenta 5)

In 1967 artist Klaus Pinter and architects Günther Zamp Kelp and Laurids Ortner founded the Austrian collective Haus-Rucker-Co* in reaction to the dramatic environmental changes brought on by the industrial era. Haus-Rucker-Co aimed to investigate the possibilities of a flexible urban design: adopting what they termed a "Mind-Expanding Program," their visionary art presents experiential installations to the audience in the form of temporary, disposable architecture that functions both as a literal and symbolic instrument for encouraging new ways of perceiving and experiencing the world.

For *documenta 5*, as a response to its central theme of "questioning reality," the group developed the idea for a pneumatic structure that could serve as the adequate form of housing under challenging new life conditions. *Oasis Nr. 7* would comprise a protective inflatable tent in which a hammock hangs between two palm trees. A series of preparatory drawings, collages and models describe *Oasis Nr. 7* and its variations with vivid details, and the project that was eventually executed in Kassel, succinctly titled *Air Unit*, consisted of a ventilated plastic sphere attached to the façade of the Museum Fridericianum, accessible to the visitor from the inside of the building through a window.

A perfect example of the artists' notion of a transitory architecture, this type of simulated living unit provided its inhabitants with filtered clean air and, thanks to its shape, offered the possibility for flexible use. Haus-Rucker-Co conceived of such survival orbs and other "mini-environments" to induce new ways of thinking, aiming to activate awareness and creativity in daily life.

*The collaborative takes its name from the Hausruck mountain range in north Austria, home region of the original members of the group, and was active through 1992. Manfred Ortner joined the collective in 1971.

Klima 2, Atemzone

In conjunction with their 1971 exhibition *Cover. Überleben in Verschmutzer Umwelt (Cover. Survive in a polluted environment)* at the Museum Haus Lange, Krefeld, Haus-Rucker-Co [...] imagined the kind of world that increasing environmental damages would lead to, a world in which general life conditions would have progressively become entirely artificial.

The sleek collages and drawings that were included in the exhibition describe their futuristic dystopia, where unprecedented "climate zones" rule and where most ordinary daily activities require the use of innovative equipment. *Atemzone, Klima 2 (Breathing zone, Climate Zone 2)*, provides clean air, as pure and fresh as the air on a mountain top, to visitors. [...]

For the exhibition, the artists covered Mies van der Rohe's Haus Lange with a spectacular inflatable plastic tent. Under the protection of this pneumatic shell, or "synthetic air reservoir" (*Synthetisches Reservat*), the entire museum benefits from its own micro-climate, offering a soothing shelter against the dramatic consequences of atmospheric pollution.

Following what they termed a "Mind-Expanding Program," Haus-Rucker-Co's visionary art investigates the possibilities of a kind of urban design that is flexible and temporary. Through experiential installations that involve the participation of the audience, their disposable architectural structures function as instruments for new ways of perceiving of space and environment.

Originally published in *The Helga and Walther Lauffs Collection*, Alexandra Whitney, ed. (Göttingen and New York: Steidl Zwirner & Wirth, 2009), Vol. II, p. 111-112.



HAUS-RUCKER-CO Air Unit (Projekt documenta 5) (Air Unit [documenta 5 Project]) 1972 Cardboard, pencil, plastic, wood, and plexiglass 11 13/16 x 17 3/8 x 9 7/8 in

Erwin Heerich

German artist Erwin Heerich dedicated his career to developing a vast repertoire of geometric compositions. Meticulously planned with countless isometric drawings and diagrams, the artist's sculptures are logically derived from mathematical rules, which allowed him to methodically produce variations of elementary volumes. The study of stereometry (the measurement of solid geometric figures) shaped his constructions, which, in a consistent economy of means, evolved from rather figurative bodies to more abstract combinations.

Heerich's early *Kartonplastik*, or cardboard sculptures, were executed between 1961 and 1969. His choice of this fragile, ordinary material translates as an ironic take on classic sculpture and its perennial ambition. Paradoxically, while they individually convey a sense of harmonious order, collectively, his compositions of circles and squares appear as examples of potentially infinite variations.

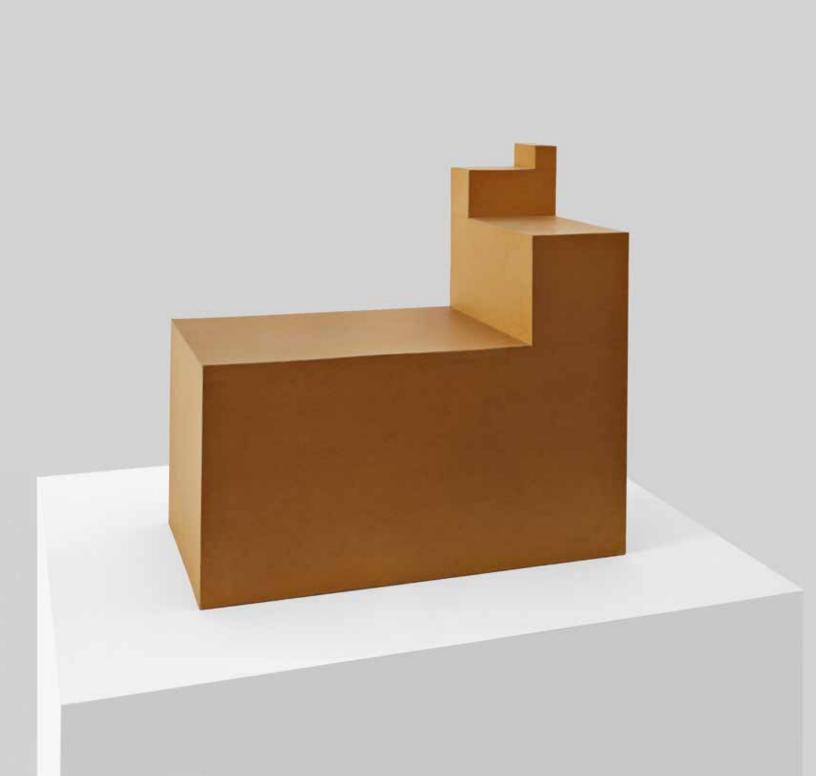
These constructions (which in later years would be executed in steel or marble) perpetuate the principles of the Bauhaus and the International Style, while also relating to Mondrian's Constructivism and Von Doesburg's Concrete Art. In some ways, Heerich's work also anticipates and parallels certain aspects of American Minimalism (with its seriality and systematic unfolding of geometric patterns), without adopting its purist orthodoxy.

Originally published in *The Helga and Walther Lauffs Collection*, Alexandra Whitney, ed. (Göttingen and New York: Steidl Zwirner & Wirth, 2009), Vol. II, p. 115.



ERWIN HEERICH Kartonplastik (Cardboard Sculpture) 1969 Cardboard 21 5/8 x 20 7/8 x 18 5/8 in

Opposite page: *Kartonplastik (Cardboard Sculpture)* 1968 Cardboard 29 3/4 x 31 1/2 x 15 3/4 in

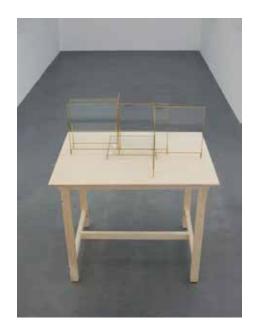


Brian O'Connell

"These photograms belong to a group of work entitled House Beautiful made up of a model-scale sculpture consisting of eight 30 cm square pieces of glass framed in brass which can be positioned in multiple ways on another 30 cm square piece that stands on four small corner posts. Using these glass panels it is possible to reconstruct the majority of Piet Mondrian's square compositions within the frame of the base. This changeable sculptural form is in fact a tool for producing large-scale unique color photograms. The three photograms in the exhibition are the result of positioning and exposing two configurations of the sculpture multiple times and with different sets of color filters.

"The title of this group of work is taken from a popular American architectural magazine published by Hearst. The April 1953 edition was dedicated to laying out the design, cultural, and life-style principles of 'The New America'. Its mission was to describe a distinctively American modern design style. This was to become the 'modernism' of 1950's America, stripped of any pre-war progressive pretensions Modernism may have had. This project literally gave form to a new capitalist (neo-liberal) utopianism emerging in America's suburbs. A particular target of House Beautiful's editor, Elizabeth Gordon was Mies' recently completed Farnsworth House, which, to her, smacked of both communism and elitism. In her editorial "The Threat to the New America" Gordon published a list of points by which the reader might recognize the perilous influence of such design, a tell-tale sign of which is that these: "Stylists design houses, furniture to look like typical Mondrian compositions: flat, banded, carefully asymmetrical rectangles of very few colors."

"I'm fascinated by structures and juxtapositions that develop from the purely formal combination of objects that in and of themselves belong to divergent discursive spheres. By combining things 'mistakenly' and pushing such combinations to their most absurd degree, the point at which they almost coalesce into seemingly meaningful or seamless objects, I think it's possible to both enjoy the strangeness of such combinations and become aware of how exactly such formulations are used in other (political and historical) spheres, as a means of producing apparent connections. This is primarily an art of and about rhetoric, which in visual terms is expressed through contesting forms and formalisms."⁶



BRIAN O'CONNELL House Beautiful, 2007 Glass and brass 45 x 38 x 30 in



BRIAN O'CONNELL Composition C; Composition with Grey and Red 2007 Triple exposed photogram using cyan and magenta filtration 40 x 30 in



Al Taylor

Ulrich Loock and Al Taylor: A Conversation

Ulrich Loock: Let's try to talk about working methods and formal aspects or starting points.

Al Taylor: Okay, I'll try that ... A year ago I was in Copenhagen and was introduced to a Danish artist at a dinner party. He really wanted to know what kind of art I made. There was a language difficulty but he kept pressing me and wouldn't back off. So under that pressure, it came to me that what I do is measure things, literally. If you make two lines—one is a certain length, the other is a certain length—it can set up a lot of interesting situations. What is the scale of those lines? Scale has always confused me; what does it really mean? Like a large room and a small piece, that is just one example of a scale shift. [...]

UL: Measuring, that seems to be a specific concept. You are not talking about composition, for instance?

AT: I am, that is part of measuring. There is measuring that is in a way the same as rhythm in music, walking around in the dark is another form of measuring. It can be a lot of things ... how much liquid does a cat's bladder hold as compared to a dog's bladder? That's an example of something I am very curious about—precise measurement. How long would a liter of water stretch given a certain force? Not so much what the image would look like, just curiosity, like eighteenth-century gentleman's science.

UL: Well, this idea of measuring bladder against bladder is interesting to me. It is a form of measurement that is not based on a generally applicable standard. Aren't we talking about a form of measurement that is inescapably bound to relativity?

AT: Think of the Fibonacci progression ... and a story. When I first came to New York and I finally got a studio, big drama to get that studio, but there I am in New York City—I am going to paint. I have a blank canvas in front of me. What am I going to paint? I don't know. So I start thinking about what I really do ... I played pool in Chinatown, I looked at pool tables for hours and hours. I didn't even have to hold the cue stick, I just liked to watch the game—the angles that the balls can go across the felt. So I started buying cans of paint, very cheap discount paint. Stick a discount brush in it and see how long the paint travels. And then I'd take another can of paint with a different color. Maybe that'll go a little farther, depending on the oil mixture and the cheapness of the pigment. I would mathematically trace off the path that a ball might take on the canvas and I kept these mathematical pool shots going until one got into the pocket—painting finished. I screwed up though, by trying to make those paintings look like art. The few I kept, the best ones, are what they really were—a measurement of a history. It took me a long time to get rid of the art parts. I'm still trying.

UL: Would you say that for each work, you set the rules anew?

AT: I set the rules and then they change. They create their own change and you have to make new rules.

UL: What would be the reasons for making new rules?

AT: Because the game is getting boring.

UL: But you are not doing purely arbitrary things.

AT: No. Curiosity sets up the first set of rules and when you learn something that you didn't expect to see, it's probably a good time to change the rules.

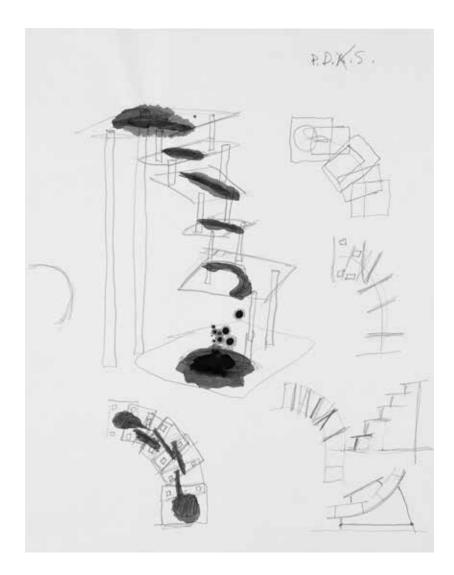
UL: Can you remember an example of a time when you changed the rules?

AT: Look, what I am asking the pieces to do is to make themselves somehow. Instead of forcing myself onto some anonymous objects, I try to find a method that will allow them to form their own logic beyond me. I don't want to be involved in the decision-making process of the work.

UL: How can you pretend not to be?

AT: It's easy to pretend anything. Basically, I want them to talk to me rather than me talking to them, so I really have to be attuned to what they might want to say.

Excerpt from an interview published in the catalogue Al Taylor *(Bern: Kunsthalle Bern, 1992).*



AL TAYLOR P.D.a.S. (Puddle Descending a Staircase) 1990 Pencil and ink on paper 14 x 11 in

Previous page: Black Piece (for Etienne-Jules Marey) 1990 Plexiglas, enamel paint, grease pencil, wood, and wire 39 3/4 x 41 x 97 3/4 in



AL TAYLOR Indexing a Pet Stain 1989 Pencil, ink, and colored pencil on paper torn from spiral ring sketchbook 12 3/4 x 9 1/2 in

Virginia Inés Vergara

Mara Hoberman and Virginia Inés Vergara: A Conversation

Mara Hoberman: The theme of this exhibition is "the model"—specifically how an artwork can function as a model in terms of Hodges' understanding: "A device that measures out a quantity of a substance also imposes a form on the substance." In the case of your photographs, the subjects wildlife dioramas at New York City's American Museum of Natural History—are themselves models of flora and fauna. I'd like to ask you some questions about how you see your artwork creating yet another—physical or conceptual model; or, to use Hodges's terms, how your creative process and the resulting final photographs 'measure their substance' and/or impose upon it a new form.

To create your *Glass-Scape* series you developed a complex configuration of layered cameras, each responsible for contributing different effects towards the final images. Could you describe the set-up you used to produce these photographs?

Virginia Inés Vergara: The set-up involves three different cameras, but there is no film in the first two cameras—they function as viewing devices. First, I set up a large-format (4 x 5 inch) camera on a tripod in front of the diorama. Then, I hold a Hasselblad camera in front of the viewfinder of the first camera so that I can see what "it" is seeing. The Hasselblad is positioned to take a picture of what the large-format camera is seeing—in other words it is once removed from the diorama, which immediately makes the scene itself appear more two-dimensional. The target feature of the Hasselblad viewfinder is visible at this stage. The crosshairs make me feel like a hunter, and I wanted that element to remain as part of the final photograph. I then add a third camera that "looks into" the Hasselblad's viewfinder (located on top of the camera). This camera, a digital model, has a swivel screen that can be placed in the viewfinder of the

Hasselblad and which captures the final image.

The cameras I use have strong personal associations for me. I very much wanted to use the Hasselblad, but the film and processing were prohibitively expensive. Then I realized I could use this camera in another way—as a kind of lens. I was looking for a way to make photographs that had a new, strange look, and I hit upon the idea for the three-camera device. For the *Glass-Scape* series, I sought out places that were somehow "out of place." The best example I found was at the Museum of Natural History, where a facsimile of, say, the African plains, exists in the middle of New York City.

MH: I find an interesting combination of kitsch and 'high art' in the final *Glass-Scape* images, which makes it possible to simultaneously appreciate the beauty of the scene and its absurdity. With this series, did you seek to expose the artificiality of the model or to subvert the conventions of the diorama as a means to create an alternate fantasy?

VIV: I would like to do both, but I am much more committed to creating an alternate fantasy, as you so well put it, and making the images my own. As someone who was born and raised in New York City and who has not spent a great deal of time in truly bucolic settings, I tend to link the scenes reproduced in the dioramas to my own experience of other artificial evocations of places. With the Glass-Scapes, I intend to draw attention to the artificiality of my photographs in relation to the "original" natural scene as well as to the ersatz quality of the dioramas. For instance, as I mentioned earlier, I allow the crosshairs that appear in the viewfinder of the Hasselblad to be recorded in the final image. The Hasselblad's viewfinder might be read as a target, hinting at the omitted focal point of the diorama. The crosshairs also signal immediately that this is a photograph—an appropriated (if manipulated) image of an existing model. Also, conceptually speaking, the large-format camera allows me to delve

deeper into the complex duality—nature vs. art—that the dioramas embody. By playing with depth of field and focus, I can enhance the flatness of the image in a way that recalls Romantic landscape paintings.

MH: In addition to incorporating the crosshairs from the Hasselblad's viewfinder, what are some of the other ways in which you manipulate the photographs to, as you say, 'make the images your own?'

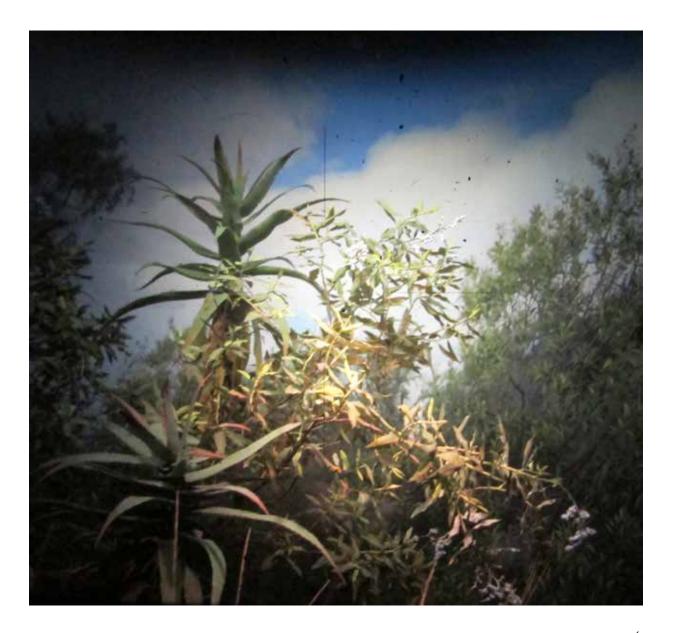
VIV: I omit all of the animals from my shots of the dioramas. Typically the animals are the main draw of a diorama, and I found that viewers in the museum seem to naturally gravitate toward the stuffed beasts as if they are psychologically hard-wired to connect with other living creatures. The taxidermy animals do, of course, retain real fur, feathers, hides, and horns, and are shown in action, enhancing the naturalism of the scene. So for my project, which emphasizes art (over nature), the animals are digitally removed. The main manipulation, however, has to do with compressing the scene portrayed in the diorama by visually combining the three-dimensional (sculpture) with the two-dimensional (painting).

MH: Have you used the three-camera instrument to document other types of scenes—natural or artificial?

VIV: At the same time that I was photographing the dioramas, I was also using my triple camera to take pictures of period rooms in the decorative arts wings of museums. I found these rooms to be like life-size dollhouses, devoid of inhabitants. In many ways they are very similar to the natural history dioramas. I plan to continue that project this summer at Schloss Charlottenburg, the 18th century baroque palace in Berlin.



VIRGINIA INÉS VERGARA Glass-Scape 12 2012 Archival C-print 6 x 8 in



VIRGINIA INÉS VERGARA Glass-Scape IV 2012 Archival C-print 30 x 32 in

Installation views















Exhibition checklist

MARY ELLEN CARROLL

100 German Men, 1997 Fifty ink prints on watercolor paper 22 x 30 in, each

How to make painting disappear (In the UK, Lloyds TSB), 2012 Birch plywood, formica, resin, oil paint, silkscreen, and hand painting

24 x 24 in

How to make painting disappear (In the UK, HSBC + *NatWest)*, 2012 Birch plywood, formica, silver resin, oil paint, silkscreen, and hand painting

36 x 36 in

How to make painting disappear (In the UK, Garrison Investment Analysis), 2012 Birch plywood, formica, gold resin, oil paint, silkscreen, and hand

painting 36 x 36 in

PETER COFFIN

Untitled, 1998 Cloth and grommets Dimensions variable

Untitled, 1998 Nylon strap and grommets Dimensions variable

JOHN DUFF

Gaming Ursa Major (Pauline Kael Never Sees a Movie Twice), 2006 Ink and pencil directly on wall Dimensions variable

Ten Objects Five Materials in Unique Combination, 2009 Plaster, resin, wax, cement, rubber, and steel Dimensions variable

ALLEN GLATTER

Walk On By , 2011 Powder-coated aluminum 60 x 72 x 72 in

Untitled 1–6, 2012 Six individual drawings, ink on paper 32 x 40 in, each

HAUS-RUCKER-CO

Klima 2, Atemzone, (*Climate 2, Breathing Zone*), 1971 Pencil, colored pencil, and collage on board 18 1/2 x 25 1/4 in

Air Unit (Projekt documenta 5), (*Air Unit [*documenta 5 *Project]*), 1972 Cardboard, pencil, plastic, wood, and Plexiglas 11 13/16 x 17 1/4 x 9 7/8 in

ERWIN HEERICH

Kartonplastik, (Cardboard Sculpture), 1968 Cardboard 29 3/4 x 31 1/2 x 15 3/4 in

BRIAN O'CONNELL

Composition No. 1; Composition with Red and Black, 2007 Photogram using yellow filtration 40 x 30 in

Composition No. 1; Composition with Red and Black, 2007 Photogram using magenta filtration 40 x 30 in

Composition C; Composition with Gray and Red, 2007 Triple exposed photogram using cyan and magenta filtration 40 x 30 in

AL TAYLOR

Indexing a Pet Stain, 1989 Pencil, ink, and colored pencil on paper torn from a spiral ring sketchbook 12 3/4 x 9 1/2 in

Untitled (Pet Stain Removal Device), 1989 Ink and coffee on paper torn from spiral ring sketchbook 9 x 12 in

Pet Stain Removal Device #4, 1989 Ink on paper torn from spiral ring sketchbook 10 5/8 x 9 in

Black Piece (for Etienne-Jules Marey), 1990 Plexiglas, enamel paint, grease pencil, wood, and wire 39 3/4 x 41 x 97 3/4 in

VIRGINIA INÉS VERGARA

Glass-Scape I-IV, 2012 Four individual archival C-prints 30 x 32 in, each

Colophon

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Garrison Investment Analysis): photo by H. Kauppila; 100 German Men. © 2012 Mary Ellen Carroll

- Peter Coffin. Untitled, 1998 (nylon strap and grommets): p.14 photos courtesy the artist, p.15 photos by V. Vergara; Untitled, 1998 (cloth and grommets): photo by H. Kauppila. © 2012 Peter Coffin
- John Duff. Ten Objects Five Materials in Unique Combination: photo by H. Kauppila; Gaming Ursa Major (Pauline Kael Never Sees a Movie Twice): photo by P. Ording. © 2012 John Duff
- Allen Glatter. *That Which:* photo courtesy of the artist; *Untitled 4, 5*: photo by Evan Joseph, courtesy fordPROJECT; *Walk On By*: photo by H. Kauppila. © 2012 Allen Glatter
- Haus-Rucker-Co. *Air Unit (Projekt* documenta 5): photo by A. Burger; courtesy David Zwirner, New York; *Klima 2, Atemzone*: photo by Barbora Gerny, Zurich; courtesy David Zwirner, New York. © 2012 Haus-Rucker-Co
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- Brian O'Connell. *House Beautiful:* image courtesy the artist; *Composition C; Composition with Gray and Red*: photo by P. Ording. © 2012 Brian O'Connell
- Al Taylor. Black Piece (for Etienne-Jules Marey); P.D.a.S. (Puddle Descending a Staircase); Indexing a Pet Stain: all photos by Glenn Steigelman; courtesy David Zwirner, New York. © 2012 The Estate of Al Taylor
- Virginia Inés Vergara. *Glass-Scape 12; Glass-Scape IV*: images courtesy the artist. © 2012 Virginia Inés Vergara

Installation views: Photos by Evan Joseph, New York; courtesy fordPROJECT, New York

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Catalogue essay: *Model Theory* © 2012 Roman Kossak Foreword © 2012 Helena Kauppila and Philip Ording

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Notes

- 1. Wilfred Hodges, "Model Theory", The Stanford Encylopedia of Philosophy (Fall 2009 Edition), Edward Zalta, ed.
- 2, 3. Mary Ellen Carroll, correspondence with the curators, 2012.
- 4. John Duff, correspondence with the curators, 2012.
- 5. Allen Glatter, correspondence with the curators, 2012.
- 6. Brian O'Connell, correspondence with the curators, 2012.

This catalogue is published on the occasion of the exhibition at fordPROJECT

Model Theories

June 26 - August 10, 2012 Curated by Helena Kauppila and Philip Ording

The curators would like to thank Guerman Aliev and fordPROJECT for their generous support of *Model Theories*. It has been a great pleasure and a privilege working with the artists in the show. Our sincere thanks to all of them. The logistics of the show would not have been possible without the hard work of Kara Finnerty, Jacqueline Gorton, and Cassandra Tighe at fordPROJ-ECT. Thanks to John Cowey, Zdravko Toic, Josh Brown, and Sam Martineau for installing the exhibition. We would also like to thank Virginia Inés Vergara and Evan Joseph for their help in photographing the exhibition. The concept of the show drew much from an (in progress) paper, "Structures" by Roman Kossak, and we are delighted to include an essay by him in the catalogue. We are also grateful to Mara Hoberman for her insightful interview with Virginia Inés Vergara. David Zwirner gallery has been very generous with lending work for the show and with providing images and background material for their artists. Special thanks to Greg Lulay, Alexandra Whitney, Erin Pearson, and Lauren Knighton at David Zwirner gallery. We would also like to thank Debbie Taylor, Günter Zamp Kelp, Erica Redling, Chris Rawson, and James Morrill for help acquiring works, permissions, and installation advice.



57 W 57 Street, 19 and 20 fls New York, NY 10019 fordproject.com

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