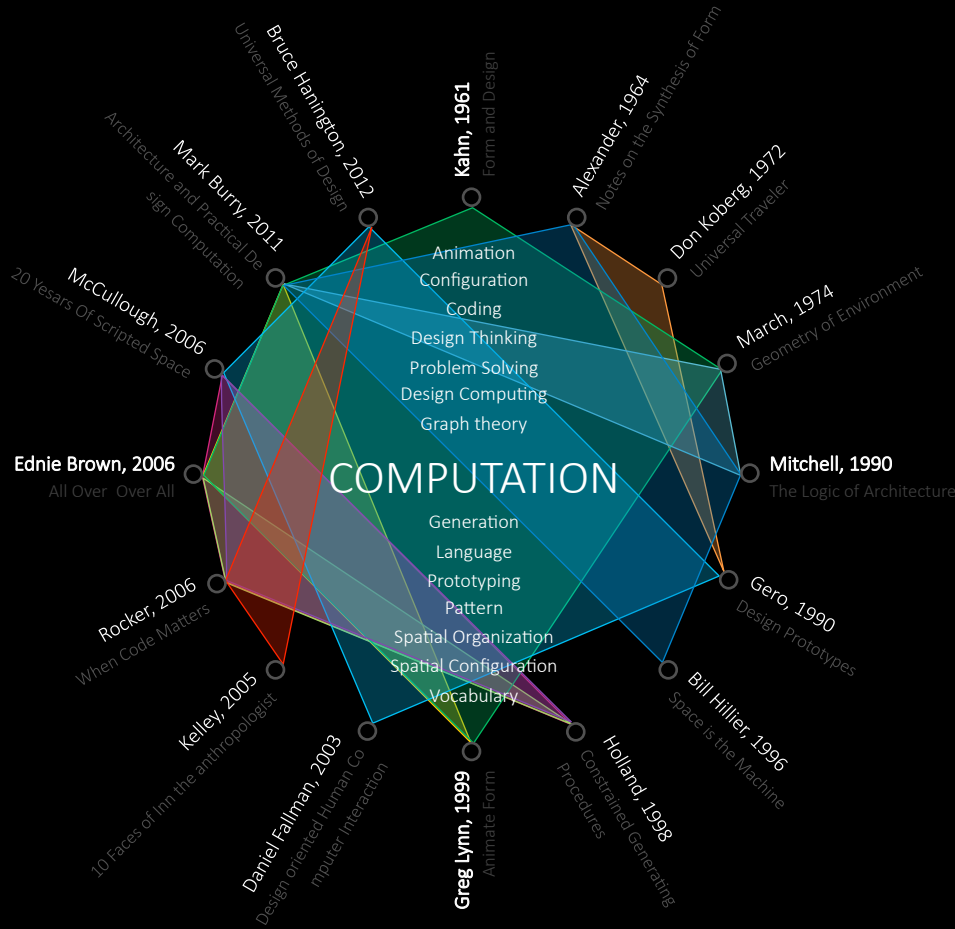


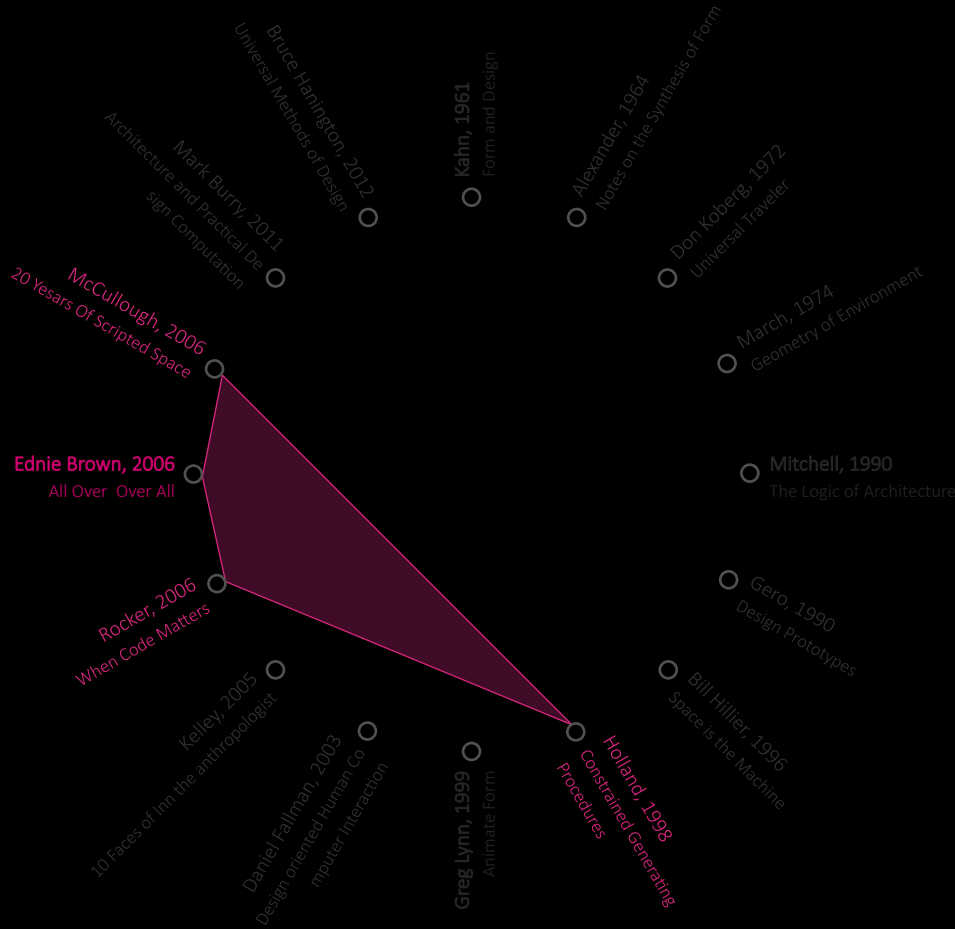
CORRELATION DIAGRAM



KEY WORD

- Algorithm
- Computational Design
- Design Process
- Emergence
- Form
- Geometry
- Methodology
- Organization
- Scripting
- Strategy

CORRELATION DIAGRAM



KEY WORD

Algorithm

is an effective method expressed as a finite list of well-defined instructions for calculating.

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

20 Yesars Of Scripted Space, 2006

MALCOLM MCCULLUGH

Scripting is a tool by which the designer can more efficiently express and explore its creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

McCullough, 2006
20 Yesars Of Scripted Space

Ednie Brown, 2006
All Over Over All

Rocker, 2006
When Code Matters

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

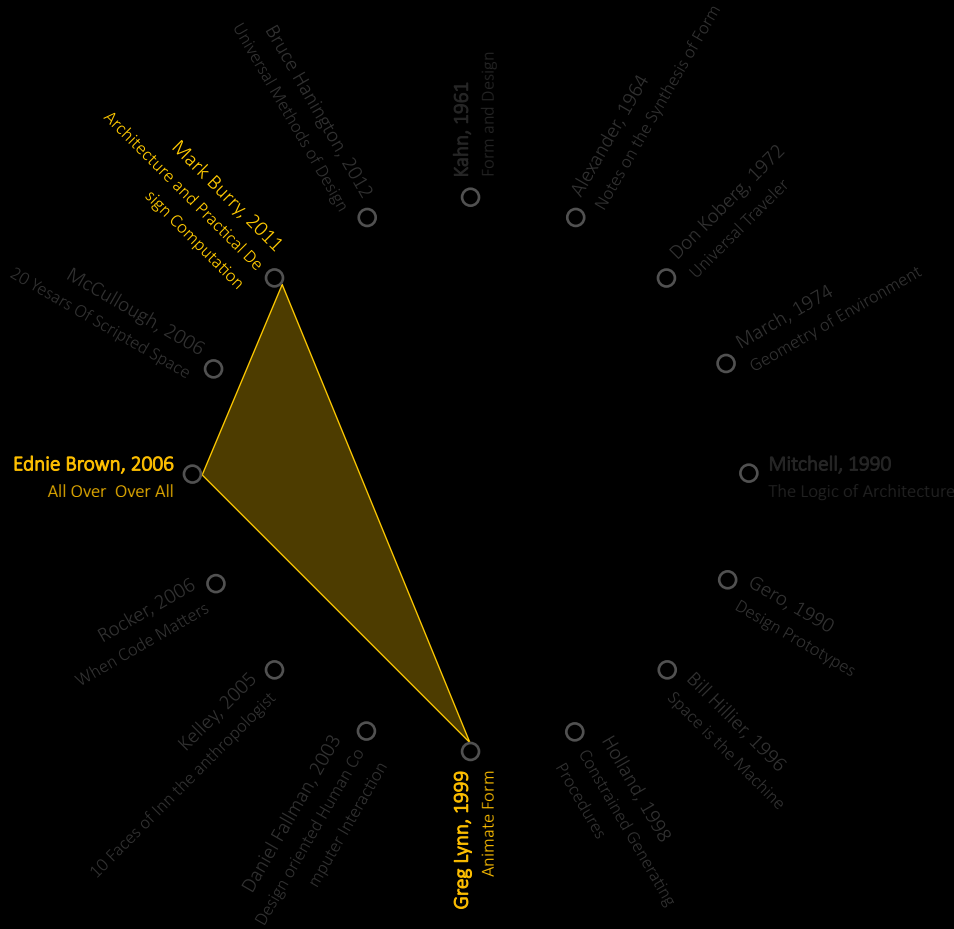
Constrained Generating Procedures, 1998

JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design
is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

Form

Geometry

Methodology

Organization

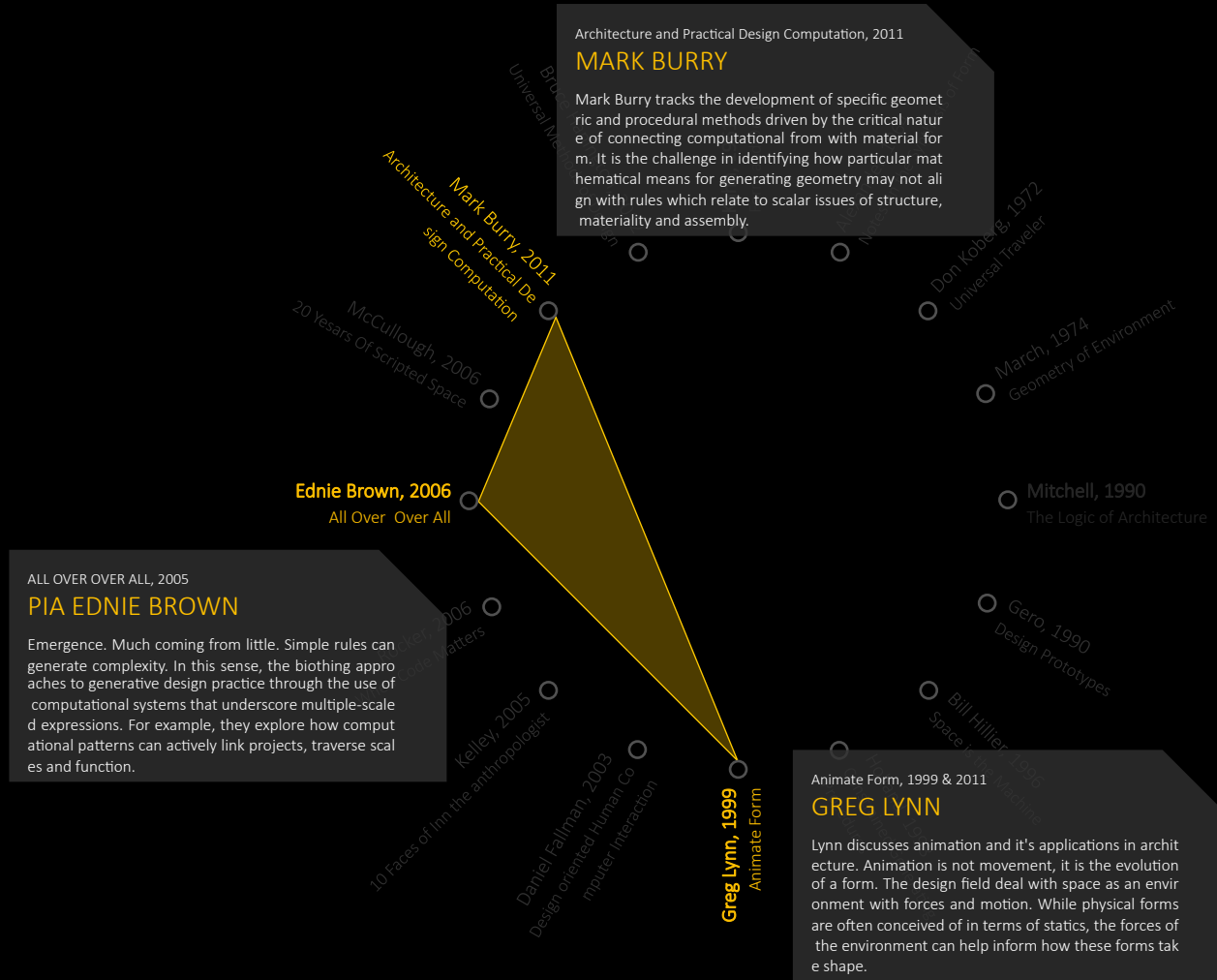
Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD



Algorithm

Computational Design
is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

Form

Geometry

Methodology

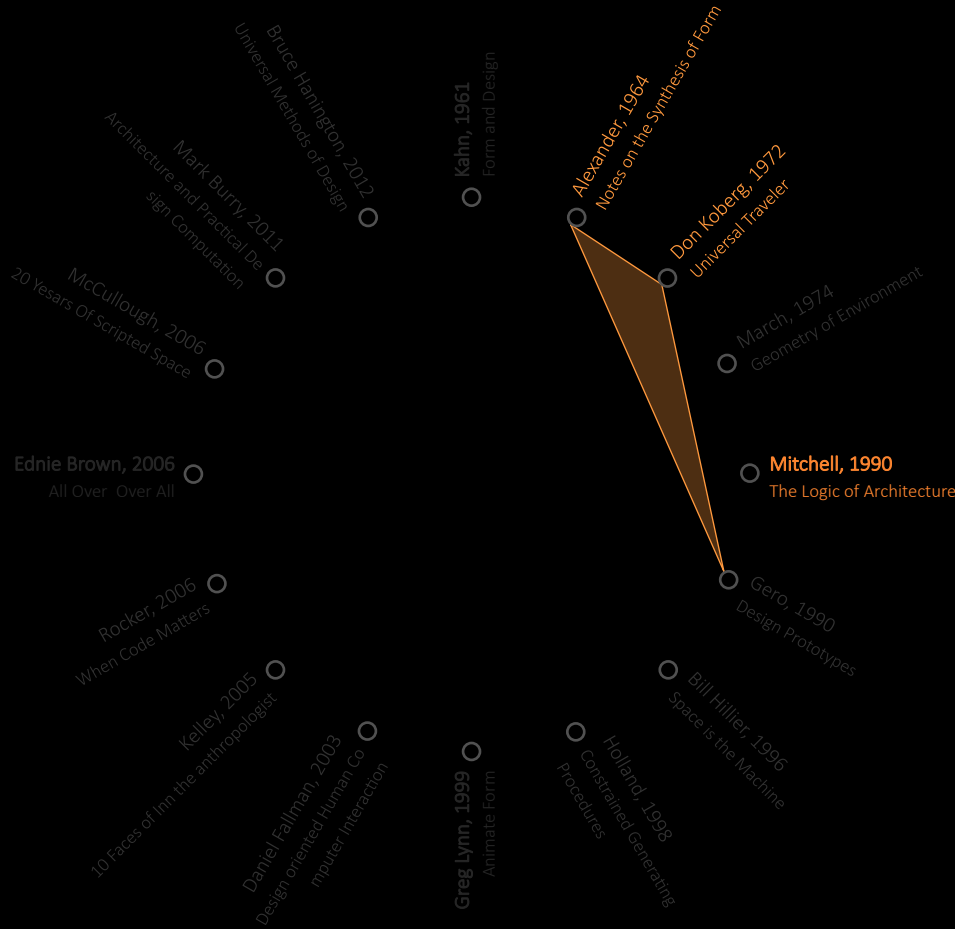
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

is a problem solving method.

Emergence

Form

Geometry

Methodology

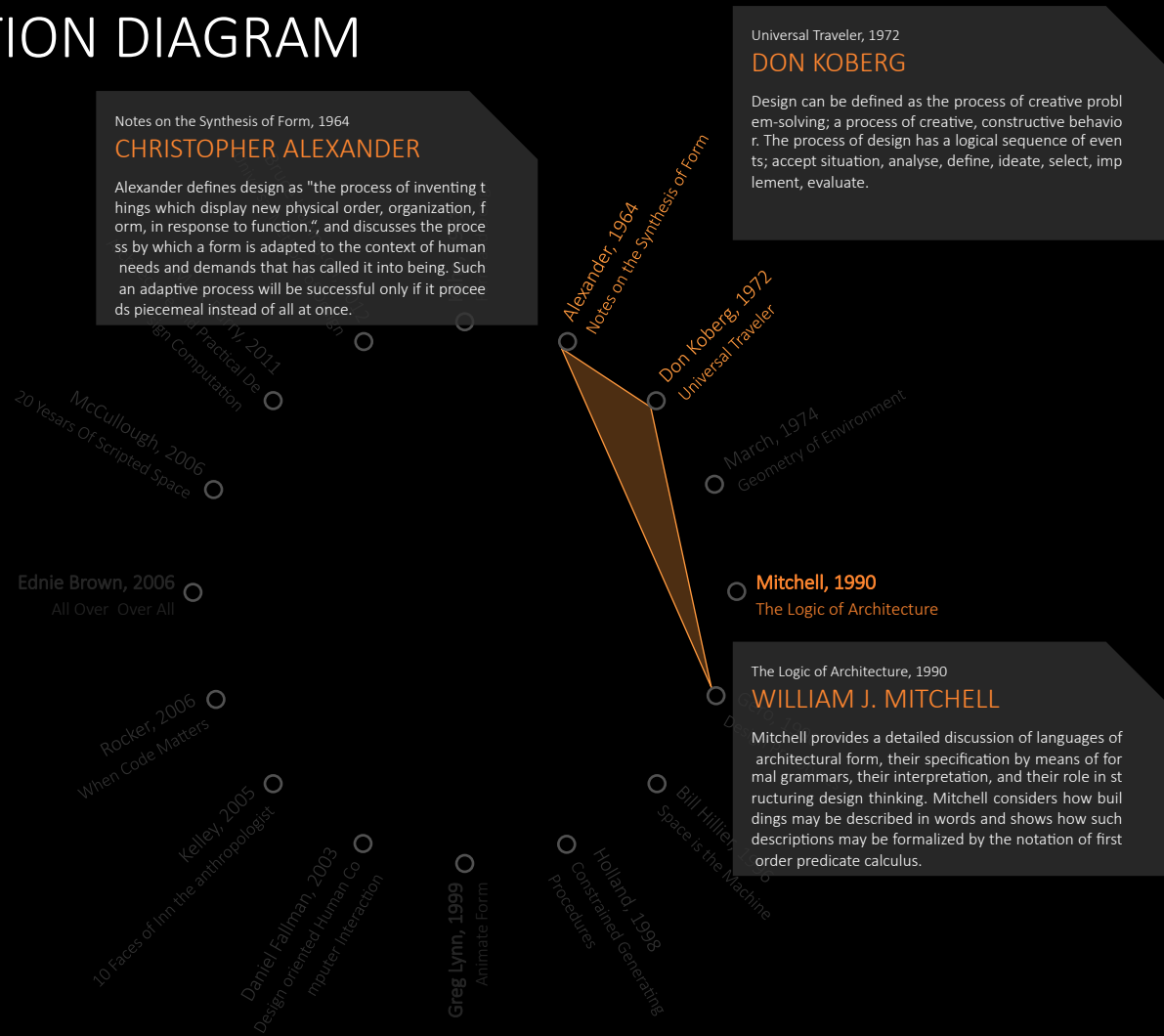
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm
Computational Design

Design Process
is a problem solving method.

Emergence

Form

Geometry

Methodology

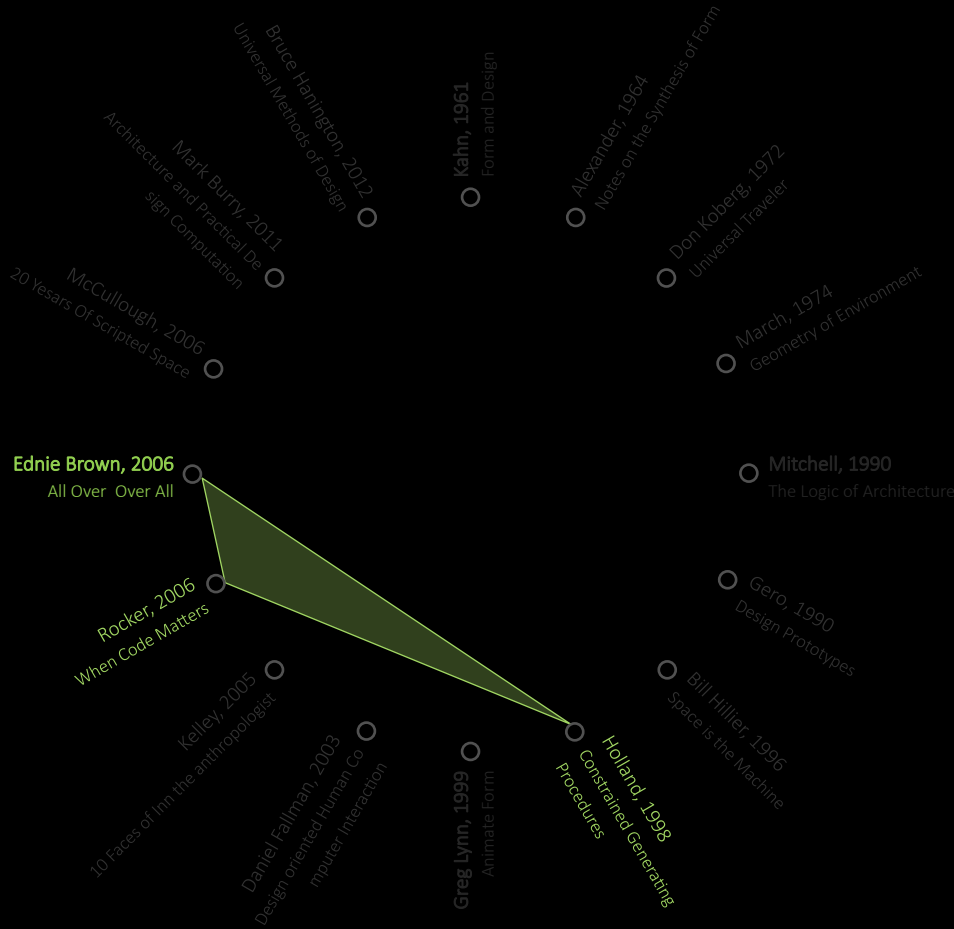
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

Geometry

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

When Code Matters, 2006

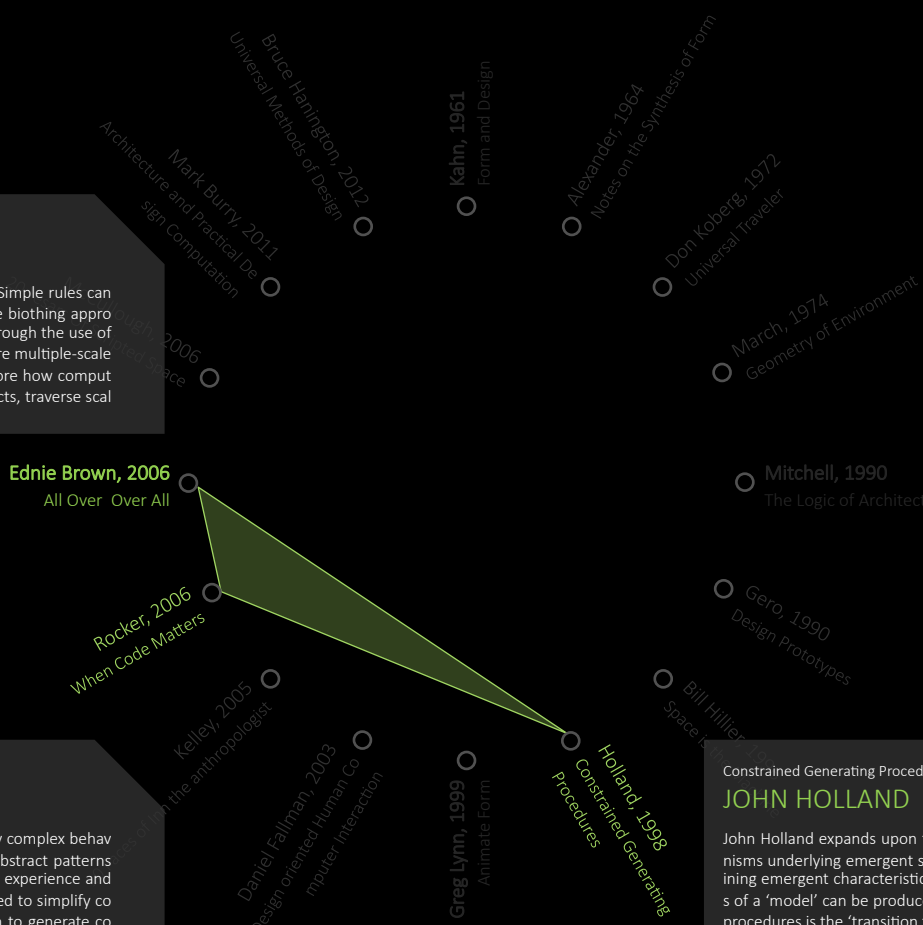
INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

Constrained Generating Procedures, 1998

JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.



Algorithm

Computational Design

Design Process

Emergence
is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

Geometry

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form
is the shape, visual appearance, constitution or configuration of an object.

Geometry

Methodology

Organization

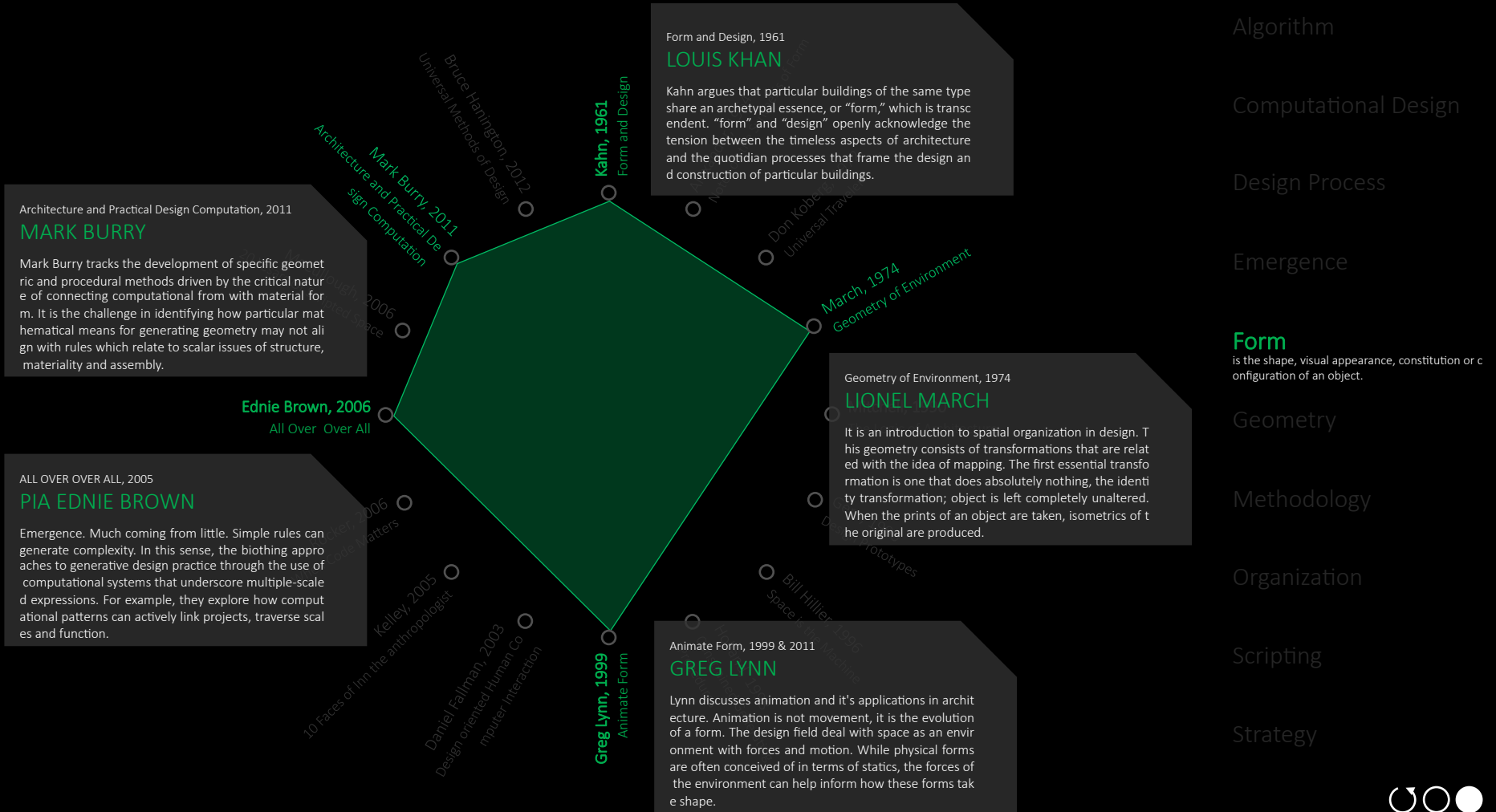
Scripting

Strategy

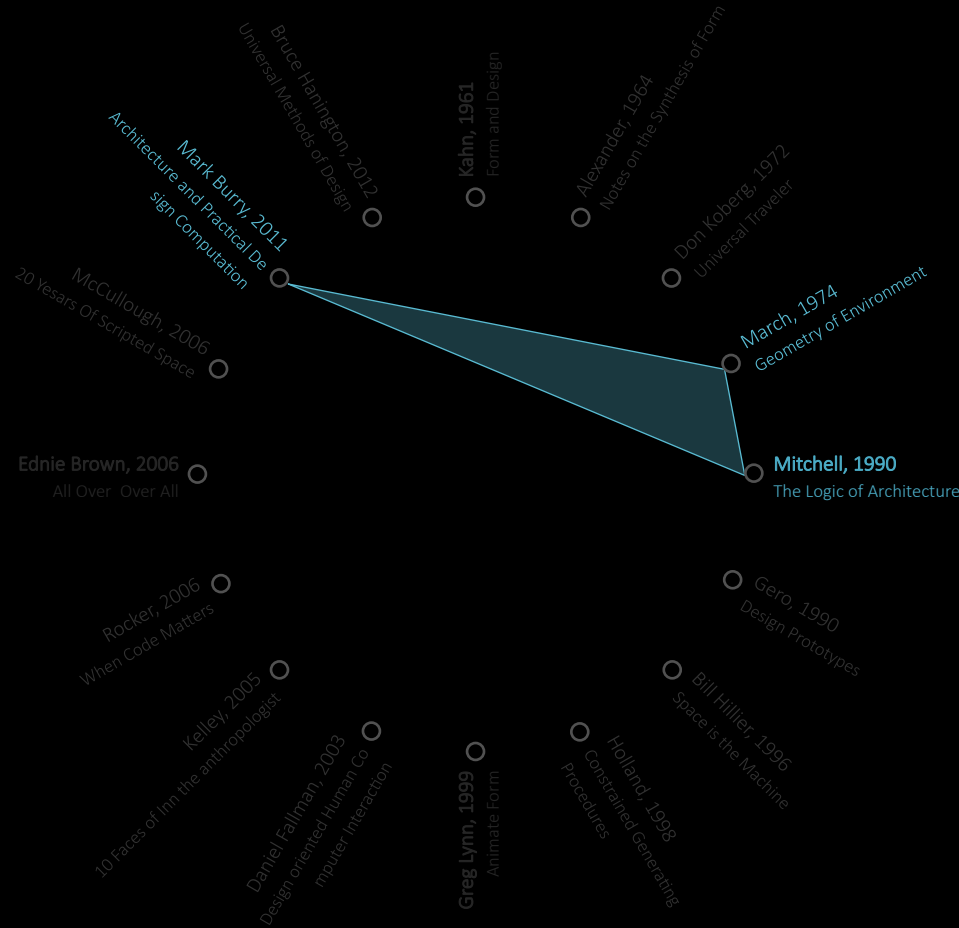


CORRELATION DIAGRAM

KEY WORD



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Architecture and Practical Design Computation, 2011

MARK BURRY

Mark Burry tracks the development of specific geometric and procedural methods driven by the critical nature of connecting computational form with material form. It is the challenge in identifying how particular mathematical means for generating geometry may not align with rules which relate to scalar issues of structure, materiality and assembly.

Geometry of Environment, 1974

LIONEL MARCH

It is an introduction to spatial organization in design. This geometry consists of transformations that are related with the idea of mapping. The first essential transformation is one that does absolutely nothing, the identity transformation; object is left completely unaltered. When the prints of an object are taken, isometrics of the original are produced.

Mitchell, 1990

The Logic of Architecture

The Logic of Architecture, 1990

WILLIAM J. MITCHELL

Mitchell provides a detailed discussion of languages of architectural form, their specification by means of formal grammars, their interpretation, and their role in structuring design thinking. Mitchell considers how buildings may be described in words and shows how such descriptions may be formalized by the notation of first order predicate calculus.

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology
is the systematic, theoretical analysis of the methods applied to a field of study.

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Universal Methods of Design, 2012
BRUCE HANINGTON

The book introduce the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

20 Yesars Of Scripted Space, 2006
MALCOLM MCCULLUGH

Scripting is a tool by which the designer can more efficiently express and explore it's creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

Design oriented Human Computer Interaction, 2003
DANIEL FALLMAN

This paper focus on what design 'is' and how it is related to. In conclusion, it is proposed that we need to acknowledge, first, the role of design in HCI conduct, and second, the difference between the knowledge-generating Design-oriented Research and the artifact-generating conduct of Research-oriented Design.

Bruce Hanington, 2012
Universal Methods of Design

McCullough, 2006
20 Yesars Of Scripted Space

Daniel Fallman, 2003
Design oriented Human Computer Interaction

Design Prototypes, 1990
JOHN S. GERO

This article discusses an elaboration of models. It then introduces and describes a knowledge representation schema for design called design prototypes. This schema supports the initiation and continuation of the act of designing. Design prototypes are shown to provide a suitable framework to distinguish routine, innovative and creative design.

- Algorithm
- Computational Design
- Design Process
- Emergence
- Form
- Geometry
- Methodology**
is the systematic, theoretical analysis of the methods applied to a field of study.
- Organization
- Scripting
- Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Architecture and Practical Design Computation, 2011

MARK BURRY

Mark Burry tracks the development of specific geometric and procedural methods driven by the critical nature of connecting computational form with material form. It is the challenge in identifying how particular mathematical means for generating geometry may not align with rules which relate to scalar issues of structure, materiality and assembly.

Notes on the Synthesis of Form, 1964

CHRISTOPHER ALEXANDER

Alexander defines design as "the process of inventing things which display new physical order, organization, form, in response to function.", and discusses the process by which a form is adapted to the context of human needs and demands that has called it into being. Such an adaptive process will be successful only if it proceeds piecemeal instead of all at once.

The Logic of Architecture, 1990

WILLIAM J. MITCHELL

Mitchell provides a detailed discussion of languages of architectural form, their specification by means of formal grammars, their interpretation, and their role in structuring design thinking. Mitchell considers how buildings may be described in words and shows how such descriptions may be formalized by the notation of first order predicate calculus.

Mitchell, 1990

The Logic of Architecture

Space is the Machine, 1996

BILL HILLIER

Buildings and cities are complex networks of space which support activities, movement and interaction. "Space is the machine" shows tools and techniques to understand the abstract interaction network from cities and buildings.", and proposes to architects the challenge to design and make architecture based on scientific and meticulous knowledge of a space.

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM

20 Years Of Scripted Space, 2006

MALCOLM MCCULLUGH

Scripting is a tool by which the designer can more efficiently express and explore its creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

Constrained Generating Procedures, 1998

JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.

KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

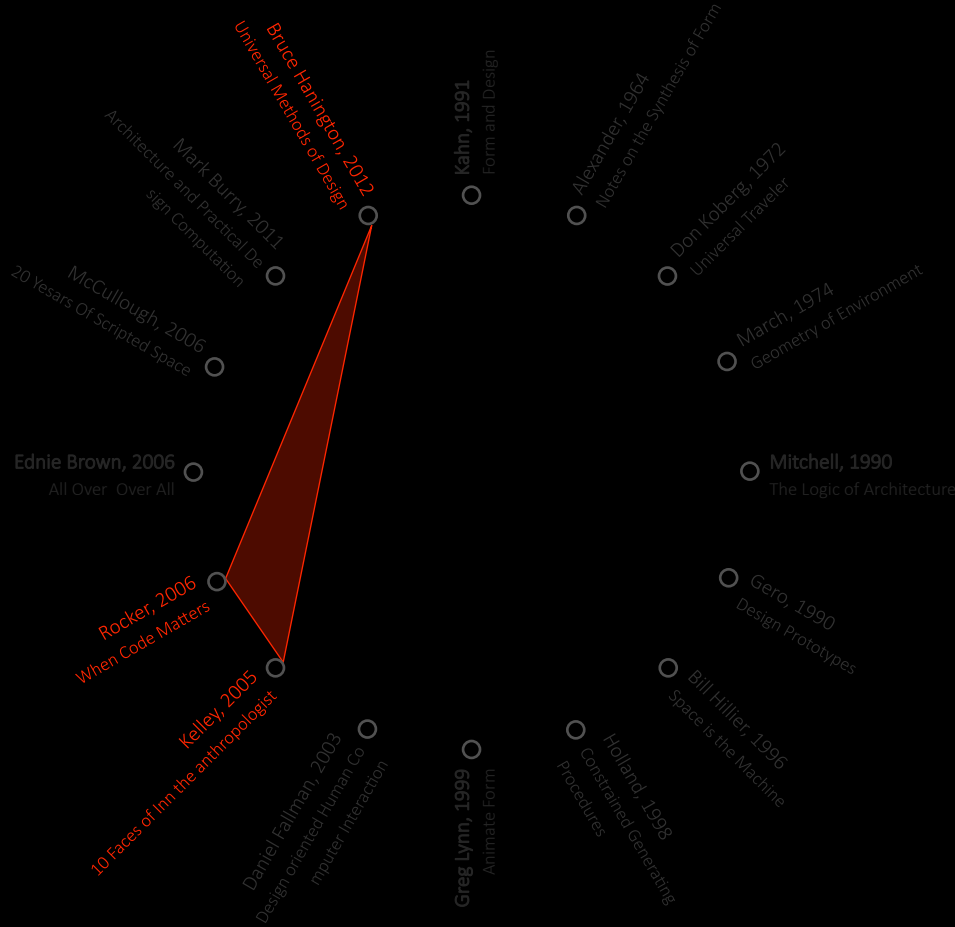
Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM



KEY WORD

- Algorithm
- Computational Design
- Design Process
- Emergence
- Form
- Geometry
- Methodology
- Organization
- Scripting

Strategy
is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM

Universal Methods of Design, 2012

BRUCE HANINGTON

The book introduces the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

Rocker, 2006
When Code Matters

Kelley, 2005
10 Faces of Inn the anthropologist

10 Faces of Inn the anthropologist, 2005

TOM KELLEY

The book discusses the limitations of the "devil's advocate" approach to interactions, which he reports can stifle early innovation. Tom puts forth ten other roles that can be helpful in design: anthropologist, experimenter, cross-pollinator, hurdler, collaborator, director, experience architect, set designer, caregiver, and storyteller



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

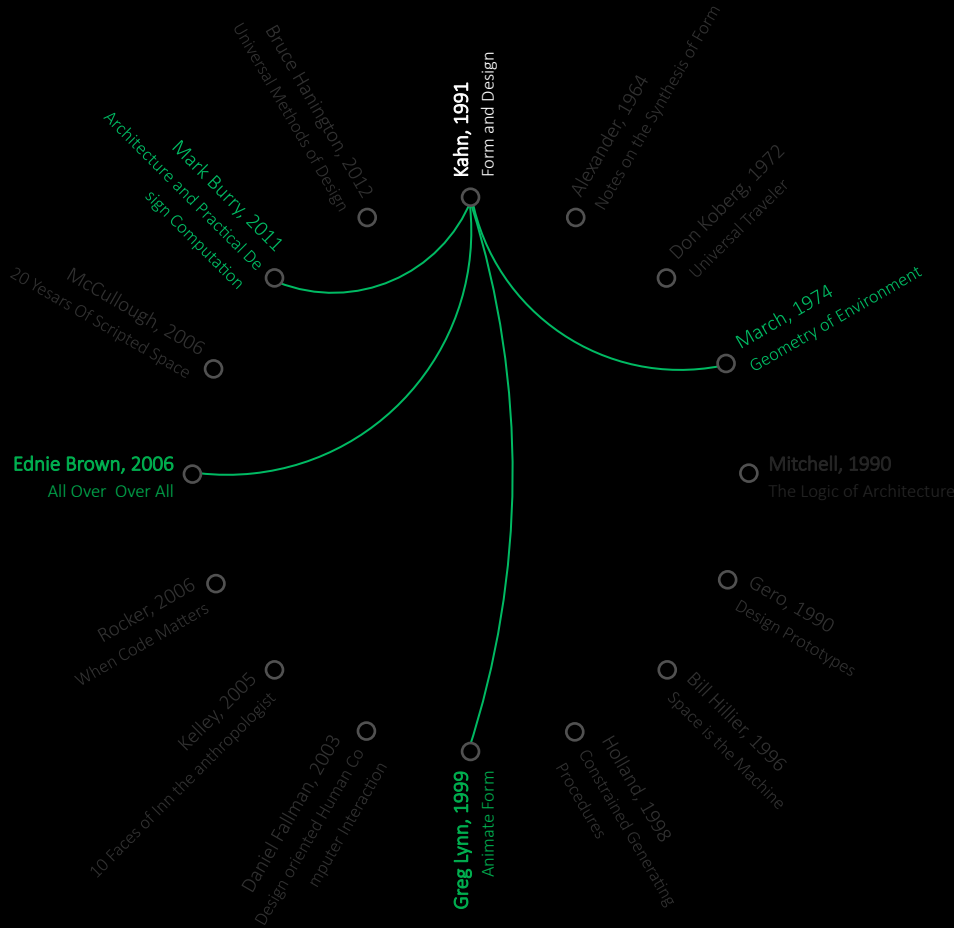
Scripting

Strategy

is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form
is the shape, visual appearance, constitution or configuration of an object.

Geometry

Methodology

Organization

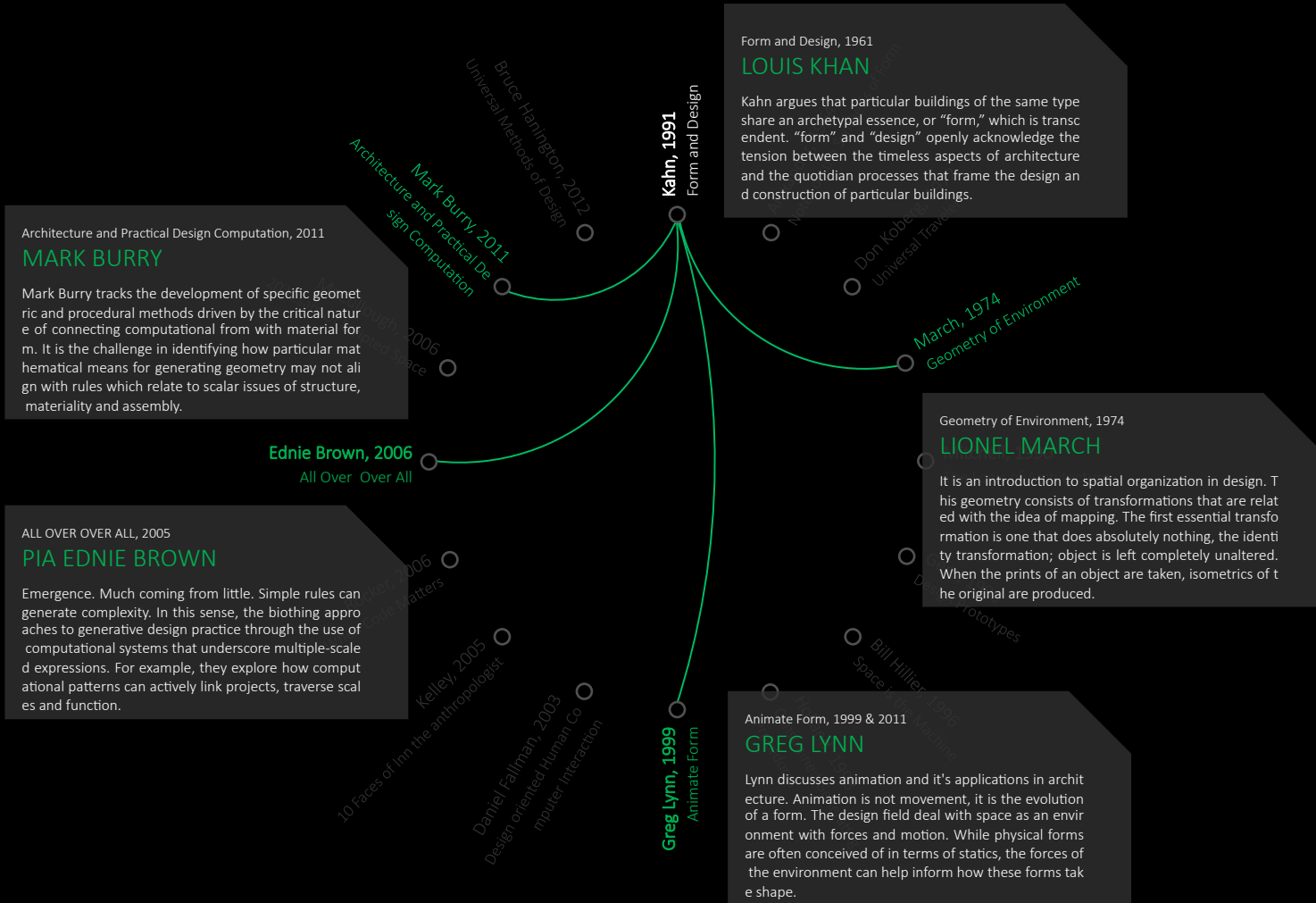
Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

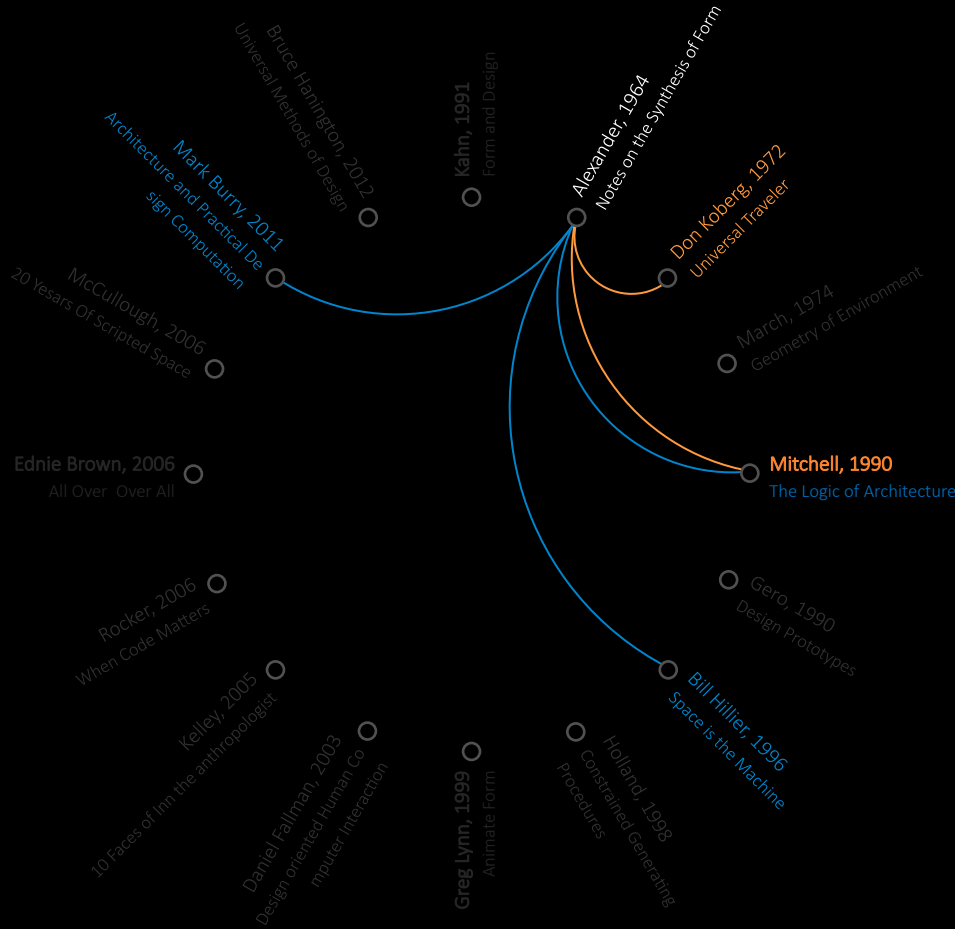


- Algorithm
- Computational Design
- Design Process
- Emergence
- Form**
is the shape, visual appearance, constitution or configuration of an object.

- Geometry
- Methodology
- Organization
- Scripting
- Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

is a problem solving method.

Emergence

Form

Geometry

Methodology

Organization

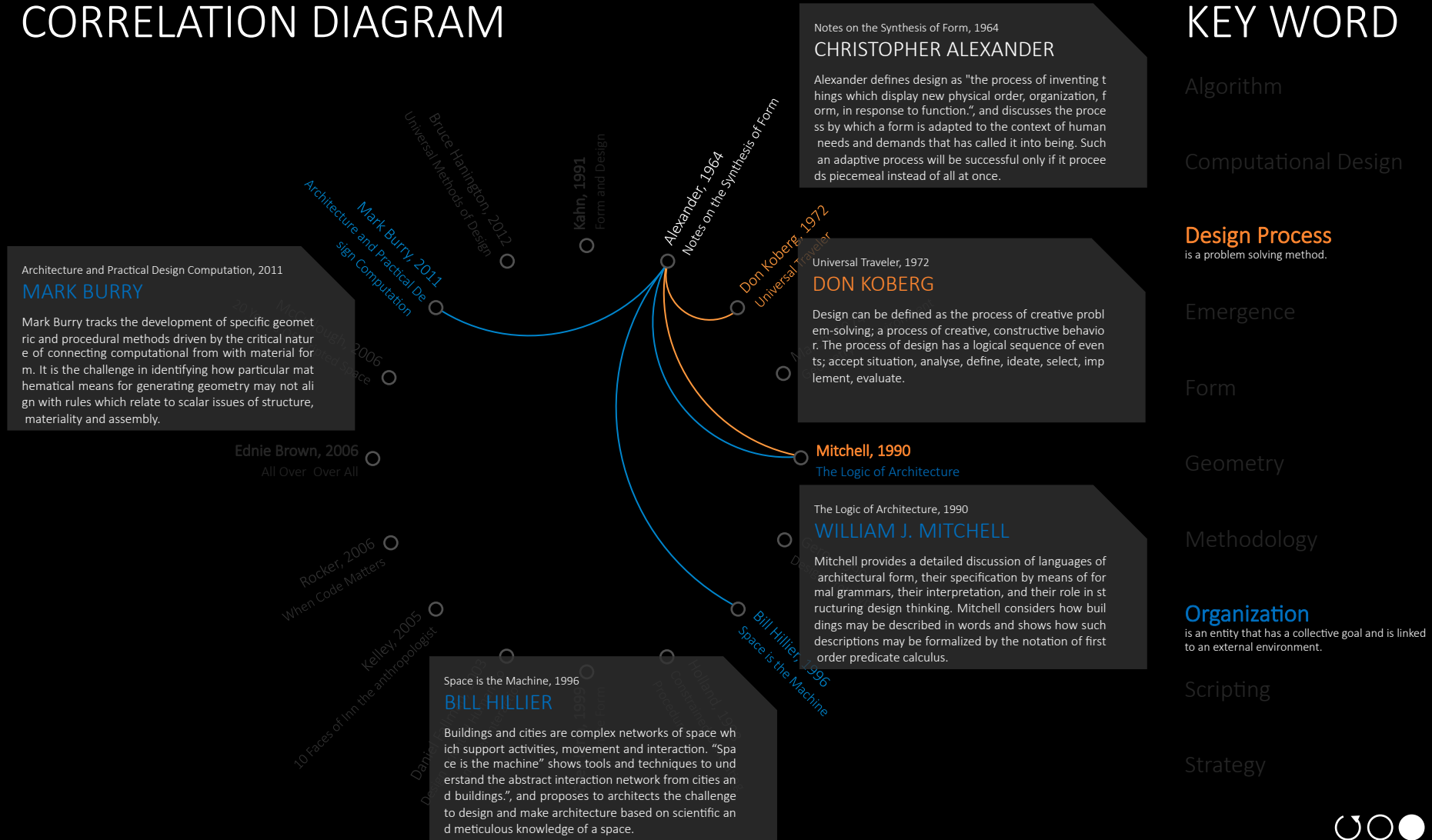
is an entity that has a collective goal and is linked to an external environment.

Scripting

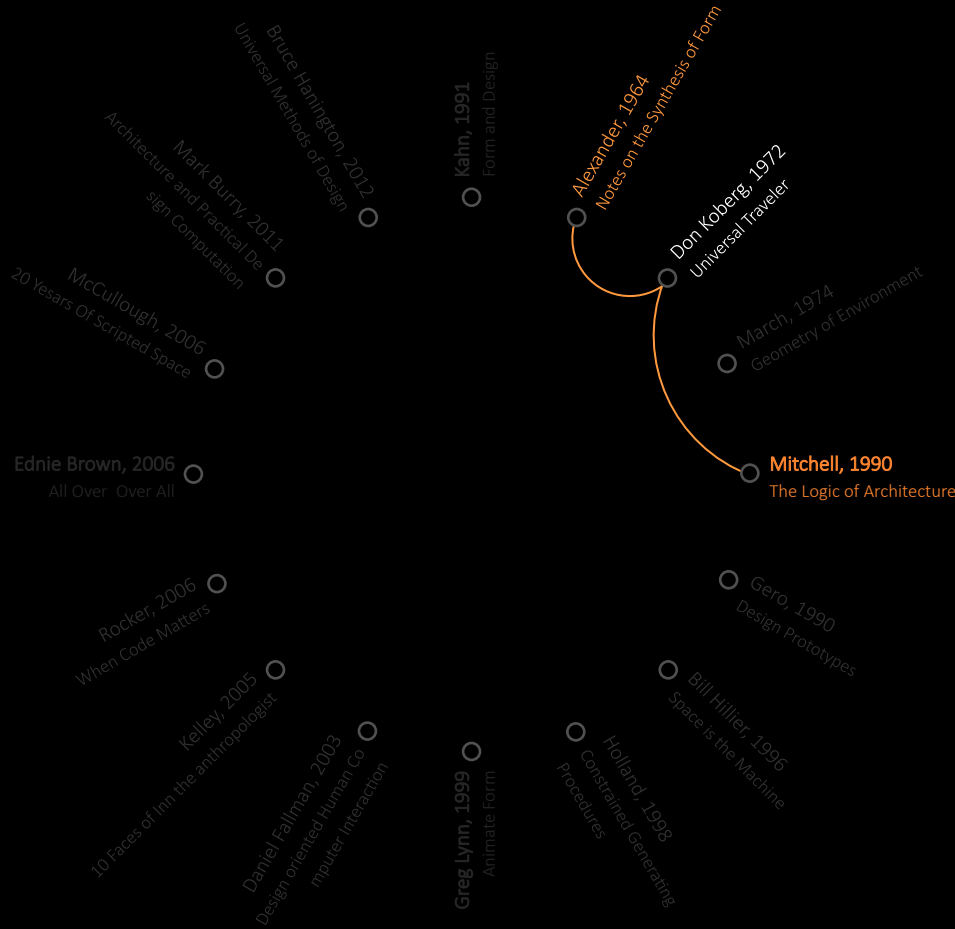
Strategy



CORRELATION DIAGRAM



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process
is a problem solving method.

Emergence

Form

Geometry

Methodology

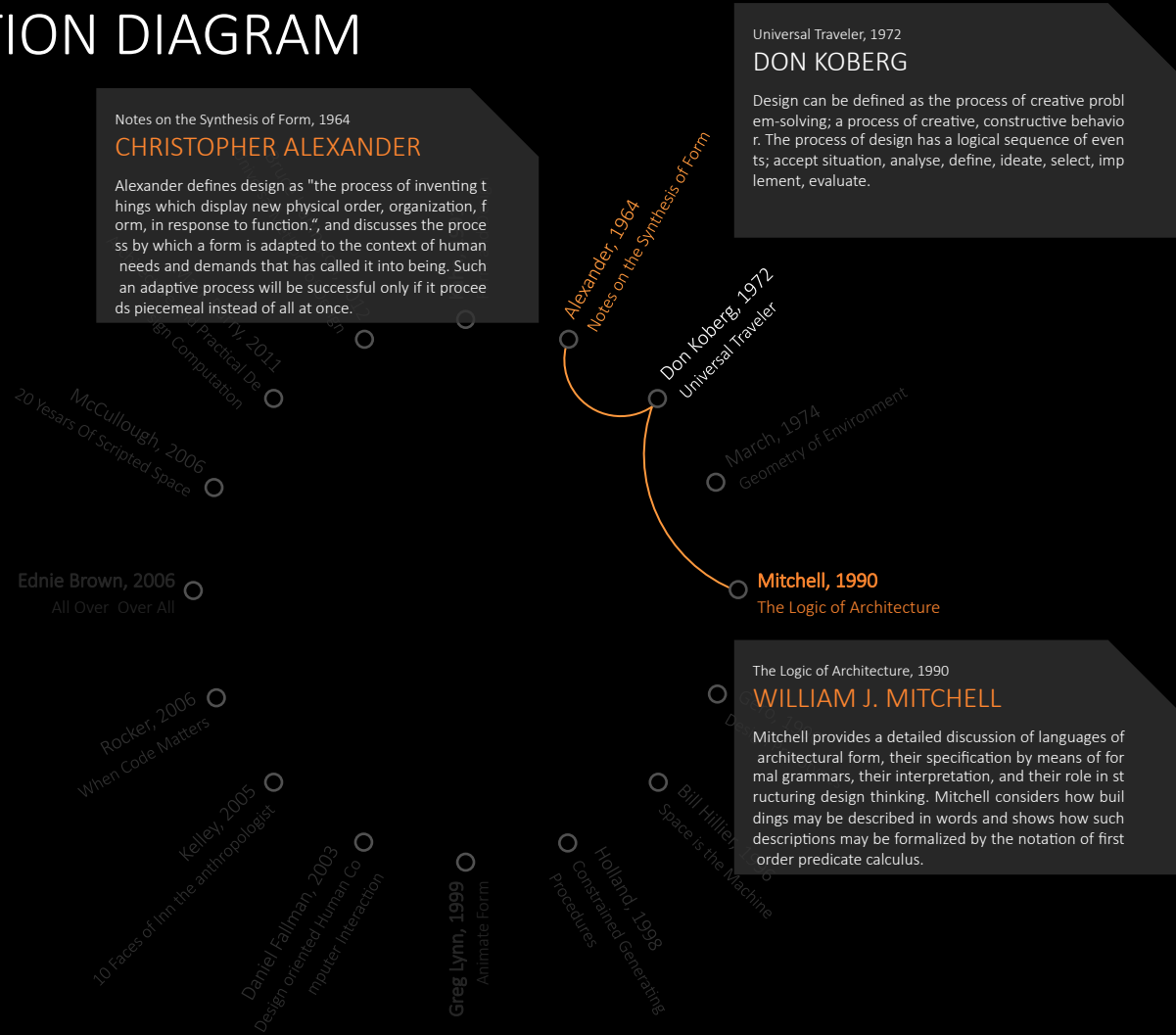
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm
Computational Design

Design Process
is a problem solving method.

Emergence

Form

Geometry

Methodology

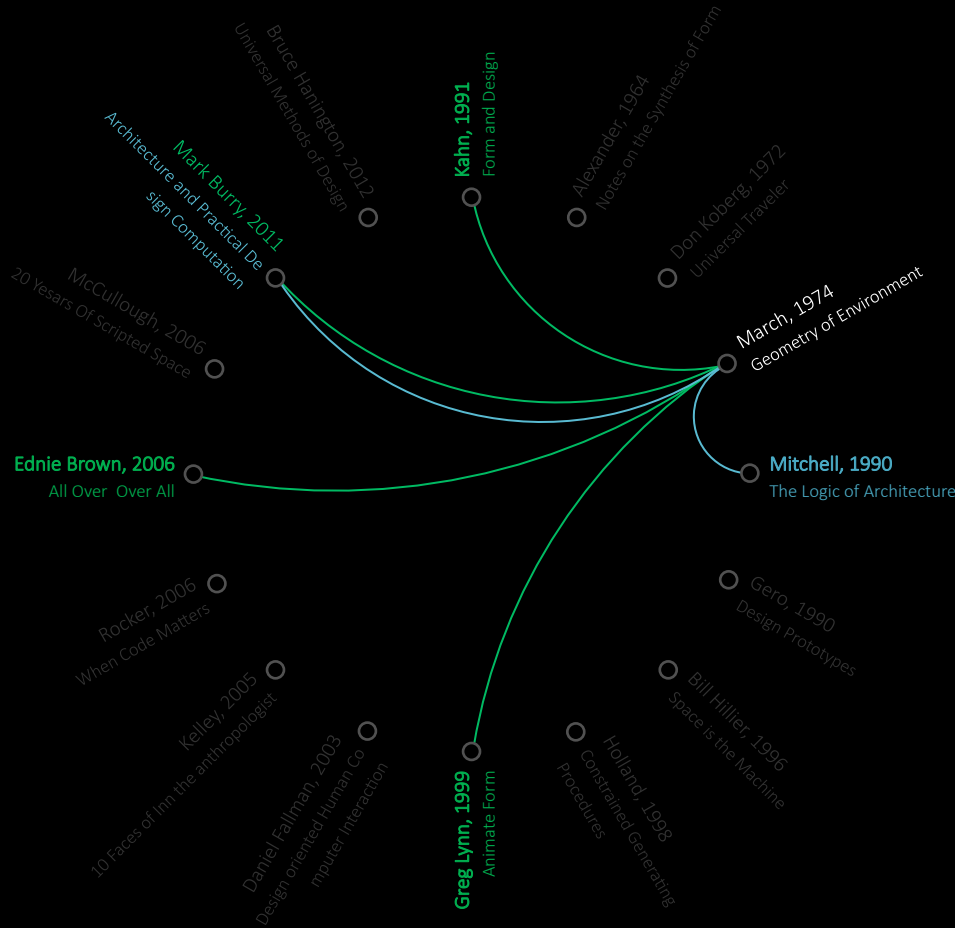
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Architecture and Practical Design Computation, 2011

MARK BURRY

Mark Burry tracks the development of specific geometric and procedural methods driven by the critical nature of connecting computational form with material form. It is the challenge in identifying how particular mathematical means for generating geometry may not align with rules which relate to scalar issues of structure, materiality and assembly.

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

Form and Design, 1961

LOUIS KHAN

Kahn argues that particular buildings of the same type share an archetypal essence, or "form," which is transcendental. "form" and "design" openly acknowledge the tension between the timeless aspects of architecture and the quotidian processes that frame the design and construction of particular buildings.

Geometry of Environment, 1974

LIONEL MARCH

It is an introduction to spatial organization in design. This geometry consists of transformations that are related with the idea of mapping. The first essential transformation is one that does absolutely nothing, the identity transformation; object is left completely unaltered. When the prints of an object are taken, isometrics of the original are produced.

Mitchell, 1990

The Logic of Architecture

The Logic of Architecture, 1990

WILLIAM J. MITCHELL

Mitchell provides a detailed discussion of languages of architectural form, their specification by means of formal grammars, their interpretation, and their role in structuring design thinking. Mitchell considers how buildings may be described in words and shows how such descriptions may be formalized by the notation of first order predicate calculus.

Animate Form, 1999 & 2011

GREG LYNN

Lynn discusses animation and its applications in architecture. Animation is not movement, it is the evolution of a form. The design field deal with space as an environment with forces and motion. While physical forms are often conceived of in terms of statics, the forces of the environment can help inform how these forms take shape.

Greg Lynn, 1999
Animate Form

Kahn, 1991
Form and Design

Mark Burry, 2011
Architecture and Practical Design Computation

Ednie Brown, 2006
All Over Over All

Pia Ednie Brown, 2005
All Over Over All

Greg Lynn, 1999 & 2011
Animate Form

Alexander, 1991
Notes on the Synthesis of Form

Don Koberger, 1991
Universal Principles of Design

Bill Hillier, 1996
Space and Architecture

Bill Hillier, 1996
Space and Architecture

Algorithm

Computational Design

Design Process

Emergence

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

is a problem solving method.

Emergence

Form

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

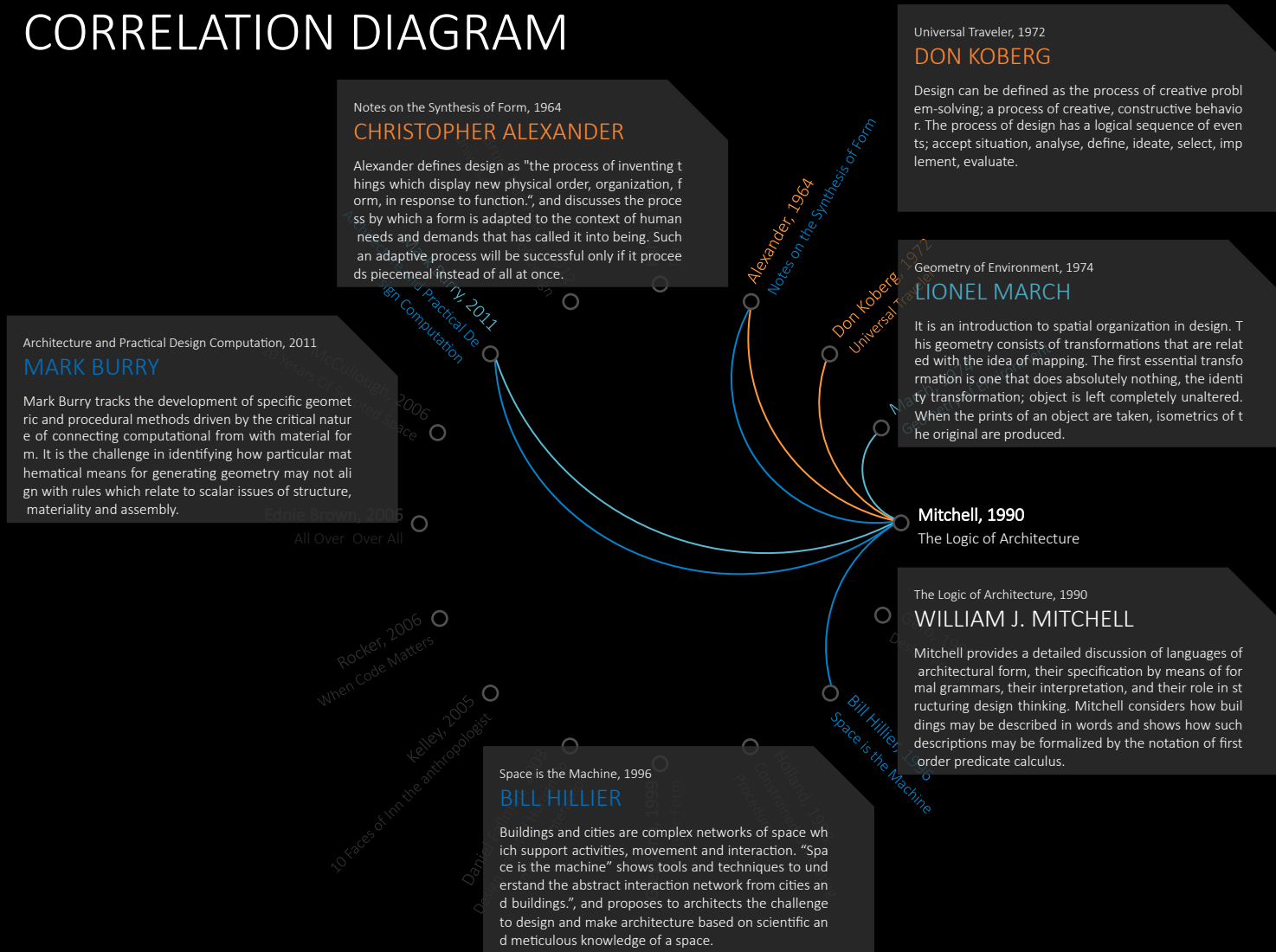
is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm
Computational Design

Design Process
is a problem solving method.

Emergence

Form

Geometry
is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

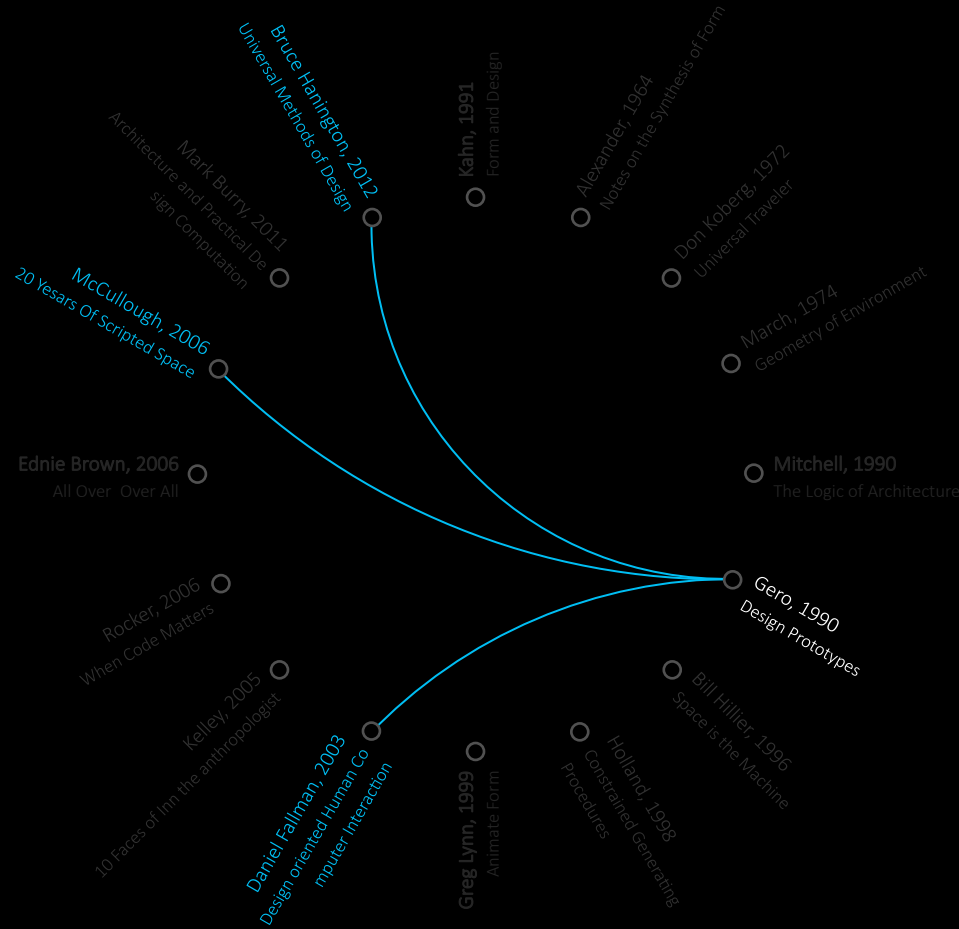
Organization
is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology
is the systematic, theoretical analysis of the methods applied to a field of study.

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Universal Methods of Design, 2012
BRUCE HANINGTON

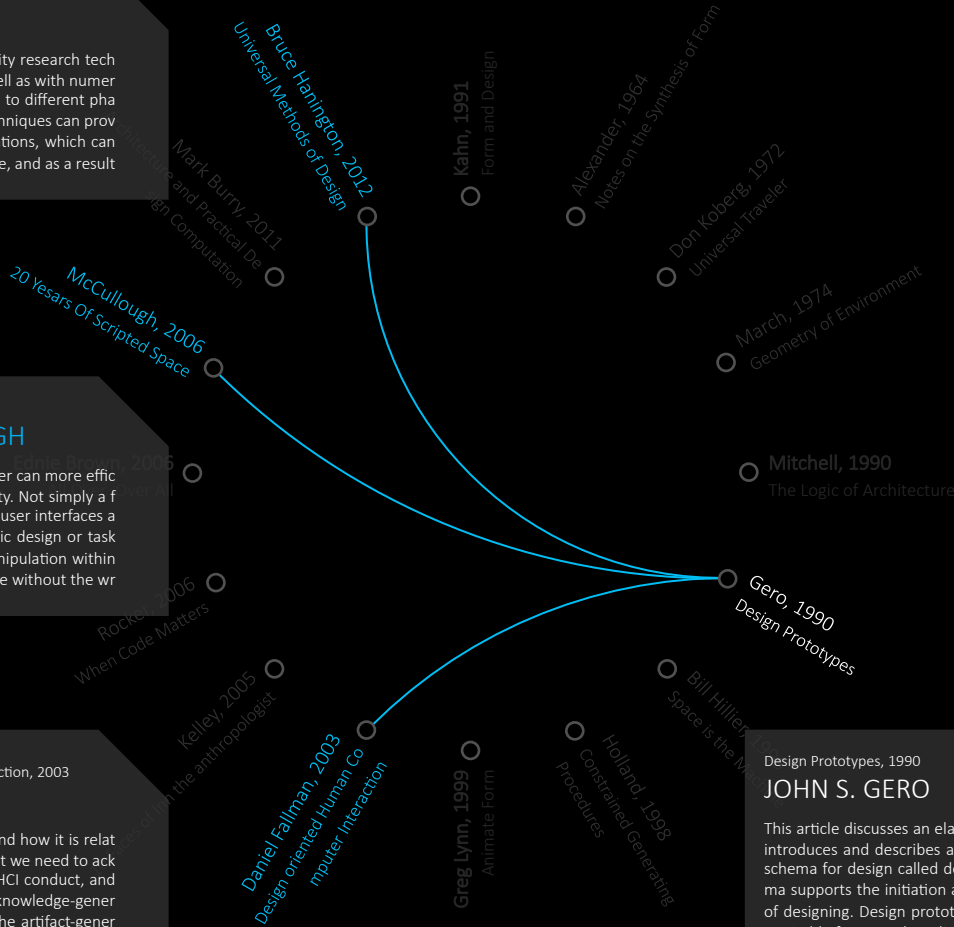
The book introduce the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

20 Yesars Of Scripted Space, 2006
MALCOLM MCCULBUGH

Scripting is a tool by which the designer can more efficiently express and explore it's creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

Design oriented Human Computer Interaction, 2003
DANIEL FALLMAN

This paper focus on what design 'is' and how it is related to. In conclusion, it is proposed that we need to acknowledge, first, the role of design in HCI conduct, and second, the difference between the knowledge-generating Design-oriented Research and the artifact-generating conduct of Research-oriented Design.



Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

is the systematic, theoretical analysis of the methods applied to a field of study.

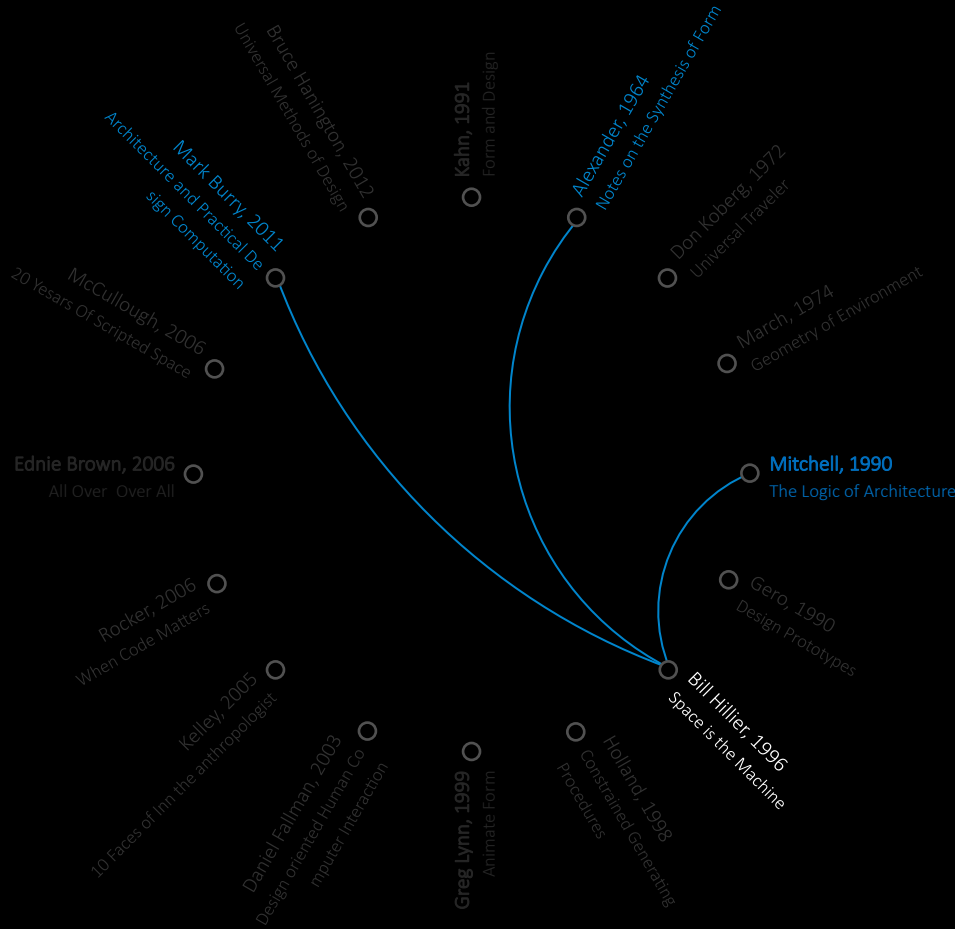
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization
is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Architecture and Practical Design Computation, 2011

MARK BURRY

Mark Burry tracks the development of specific geometric and procedural methods driven by the critical nature of connecting computational form with material form. It is the challenge in identifying how particular mathematical means for generating geometry may not align with rules which relate to scalar issues of structure, materiality and assembly.

Notes on the Synthesis of Form, 1964

CHRISTOPHER ALEXANDER

Alexander defines design as "the process of inventing things which display new physical order, organization, form, in response to function.", and discusses the process by which a form is adapted to the context of human needs and demands that has called it into being. Such an adaptive process will be successful only if it proceeds piecemeal instead of all at once.

The Logic of Architecture, 1990

WILLIAM J. MITCHELL

Mitchell provides a detailed discussion of languages of architectural form, their specification by means of formal grammars, their interpretation, and their role in structuring design thinking. Mitchell considers how buildings may be described in words and shows how such descriptions may be formalized by the notation of first order predicate calculus.

Mitchell, 1990

The Logic of Architecture

Space is the Machine, 1996

BILL HILLIER

Buildings and cities are complex networks of space which support activities, movement and interaction. "Space is the machine" shows tools and techniques to understand the abstract interaction network from cities and buildings.", and proposes to architects the challenge to design and make architecture based on scientific and meticulous knowledge of a space.

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

Organization

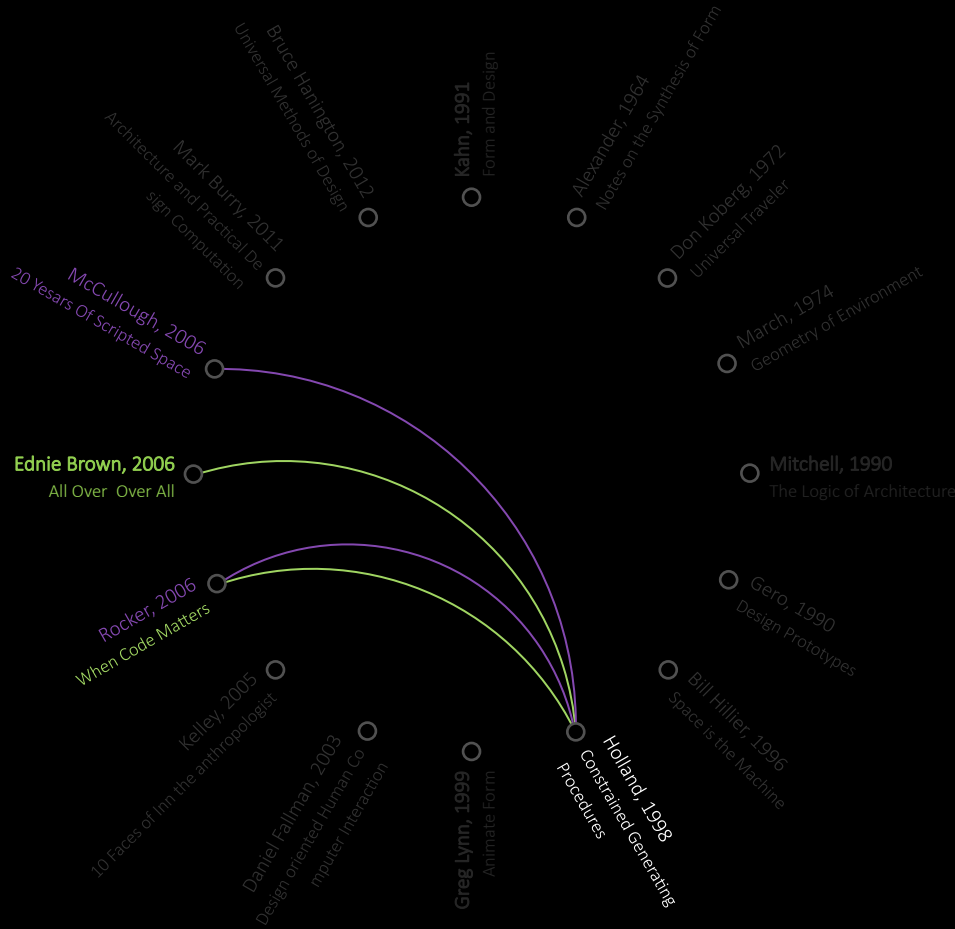
is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence
is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

Geometry

Methodology

Organization

Scripting
is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

20 Yezars Of Scripted Space, 2006

MALCOLM MCCULBUGH

Scripting is a tool by which the designer can more efficiently express and explore it's creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

Constrained Generating Procedures, 1998

JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.

KEY WORD

Algorithm

Computational Design

Design Process

Emergence

is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

Geometry

Methodology

Organization

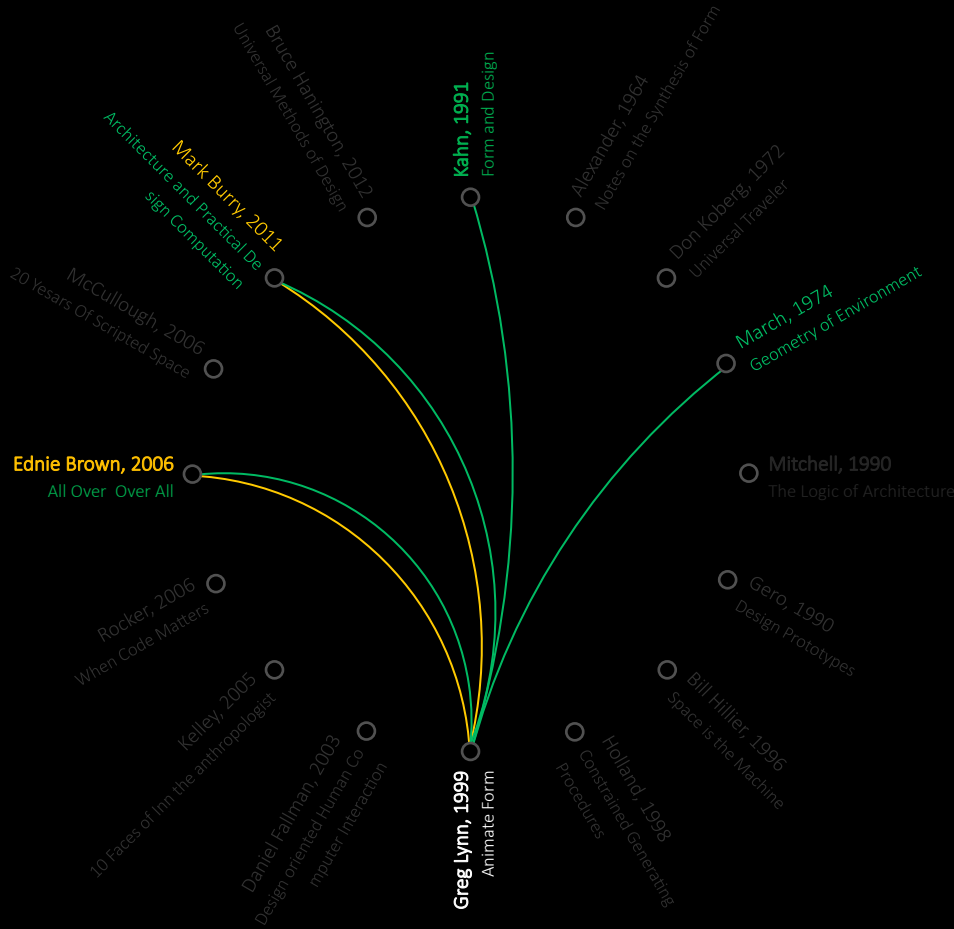
Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

Methodology

Organization

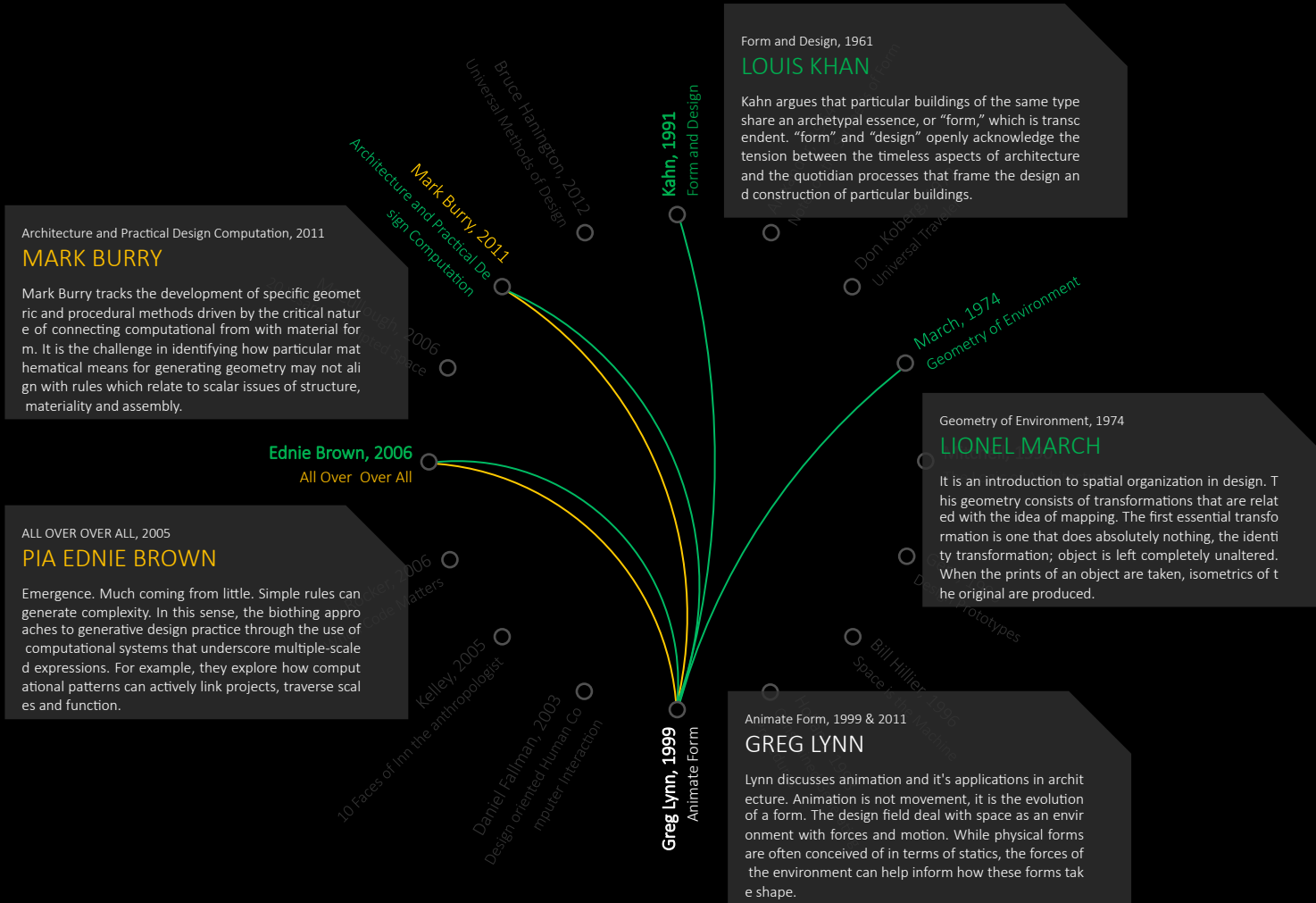
Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD



Algorithm

Computational Design
is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

Form
is the shape, visual appearance, constitution or configuration of an object.

Geometry

Methodology

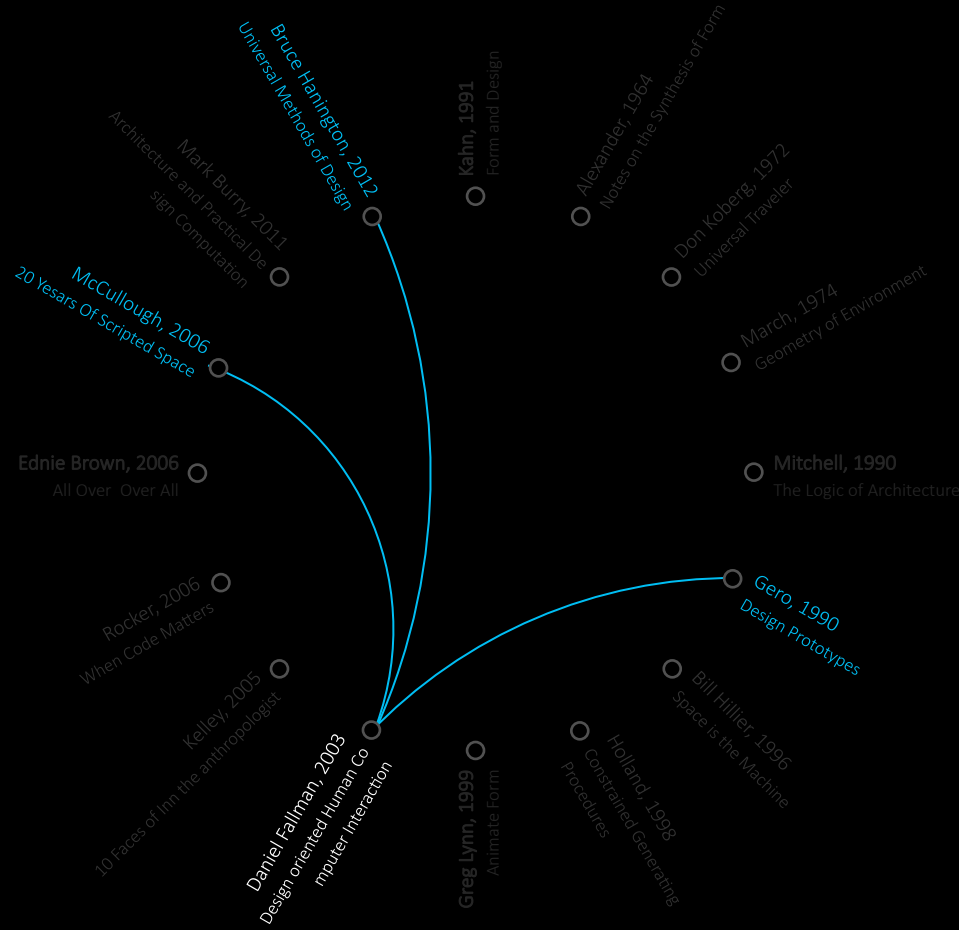
Organization

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology
is the systematic, theoretical analysis of the methods applied to a field of study.

Organization

Scripting

Strategy



CORRELATION DIAGRAM

KEY WORD

Universal Methods of Design, 2012
BRUCE HANINGTON

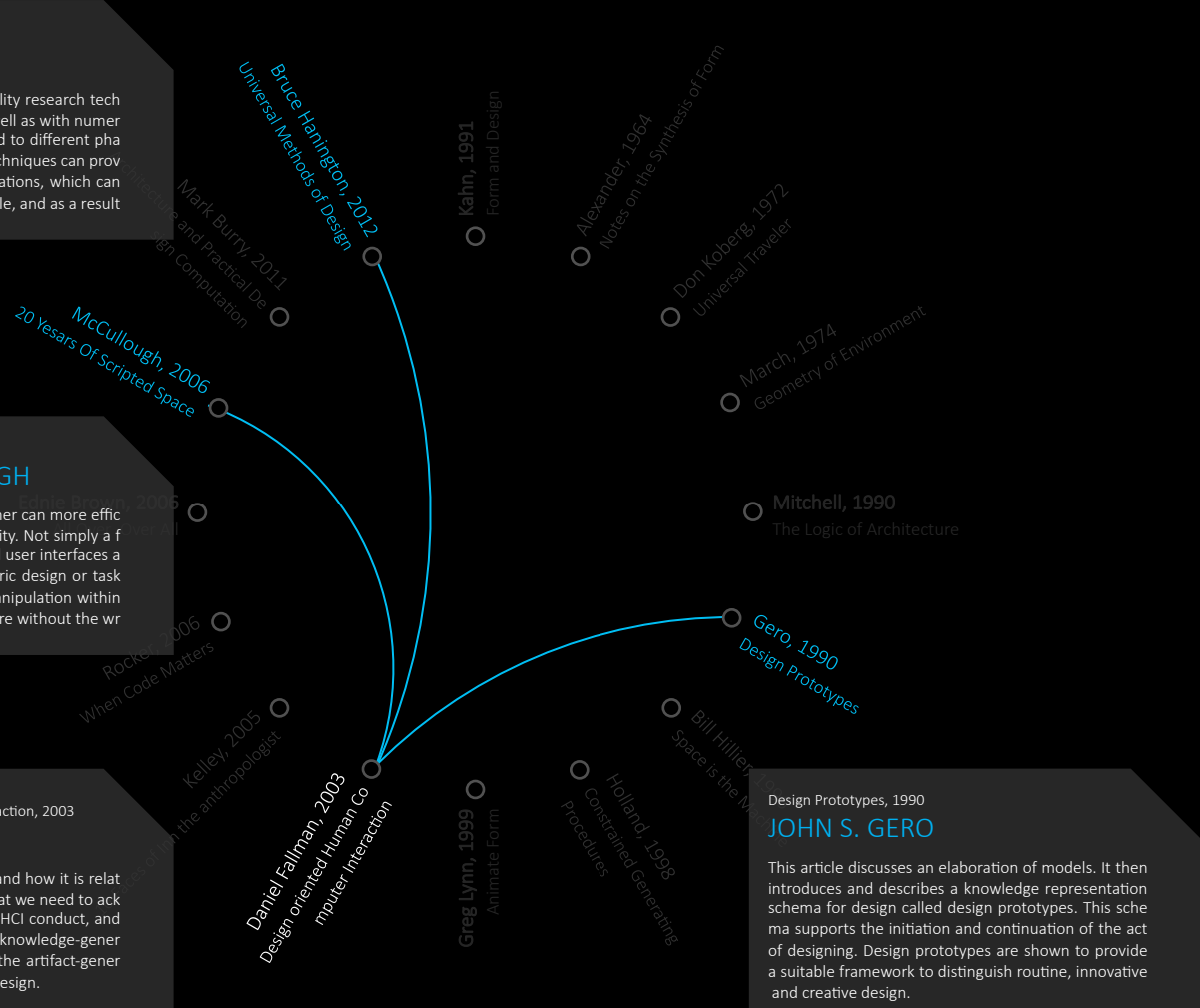
The book introduce the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

20 Yesars Of Scripted Space, 2006
MALCOLM MCCULBUGH

Scripting is a tool by which the designer can more efficiently express and explore it's creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

Design oriented Human Computer Interaction, 2003
DANIEL FALLMAN

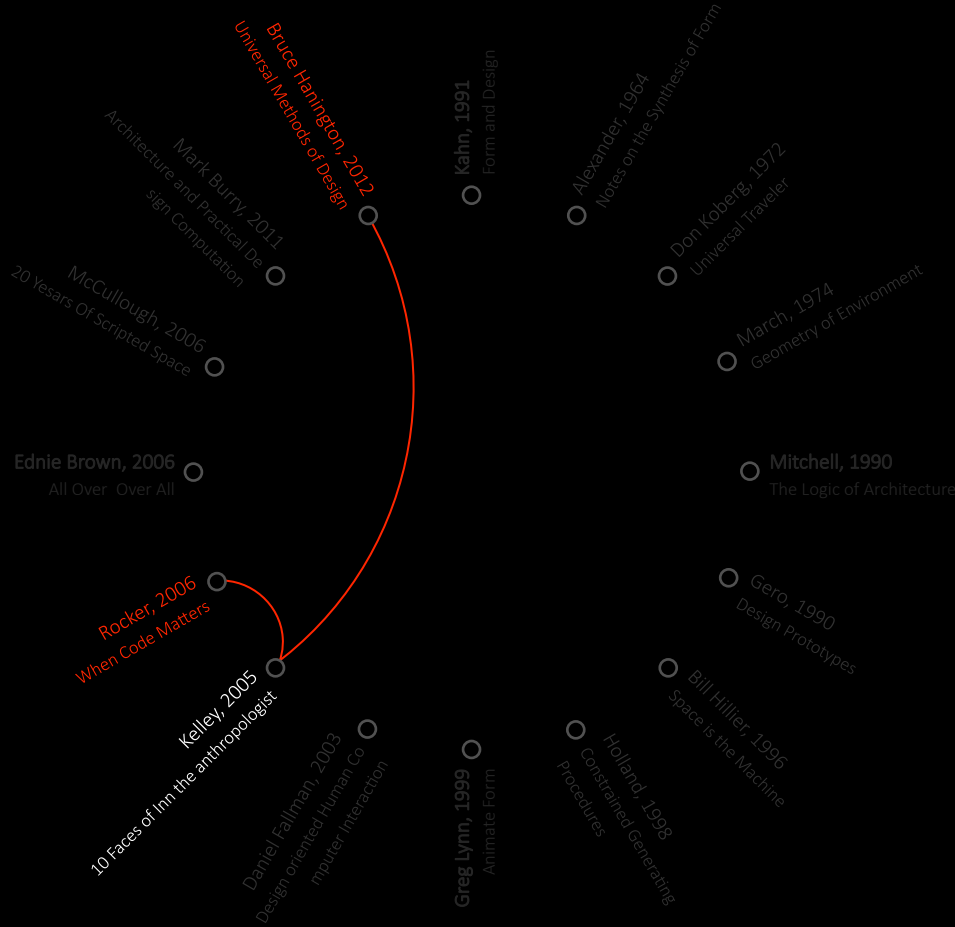
This paper focus on what design 'is' and how it is related to. In conclusion, it is proposed that we need to acknowledge, first, the role of design in HCI conduct, and second, the difference between the knowledge-generating Design-oriented Research and the artifact-generating conduct of Research-oriented Design.



- Algorithm
- Computational Design
- Design Process
- Emergence
- Form
- Geometry
- Methodology**
is the systematic, theoretical analysis of the methods applied to a field of study.
- Organization
- Scripting
- Strategy



CORRELATION DIAGRAM



KEY WORD

- Algorithm
- Computational Design
- Design Process
- Emergence
- Form
- Geometry
- Methodology
- Organization
- Scripting

Strategy
is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM

Universal Methods of Design, 2012

BRUCE HANINGTON

The book introduces the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

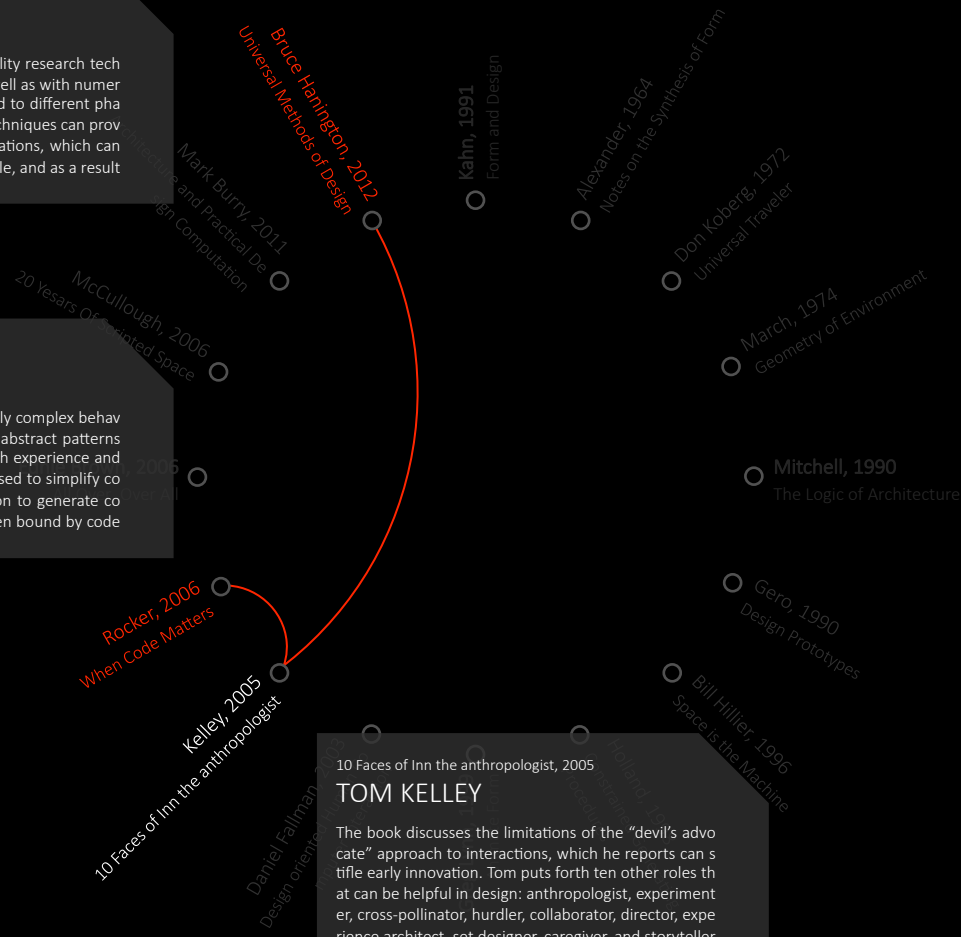
Rocker, 2006
When Code Matters

Kelley, 2005
10 Faces of Inn the anthropologist

10 Faces of Inn the anthropologist, 2005

TOM KELLEY

The book discusses the limitations of the "devil's advocate" approach to interactions, which he reports can stifle early innovation. Tom puts forth ten other roles that can be helpful in design: anthropologist, experimenter, cross-pollinator, hurdler, collaborator, director, experience architect, set designer, caregiver, and storyteller



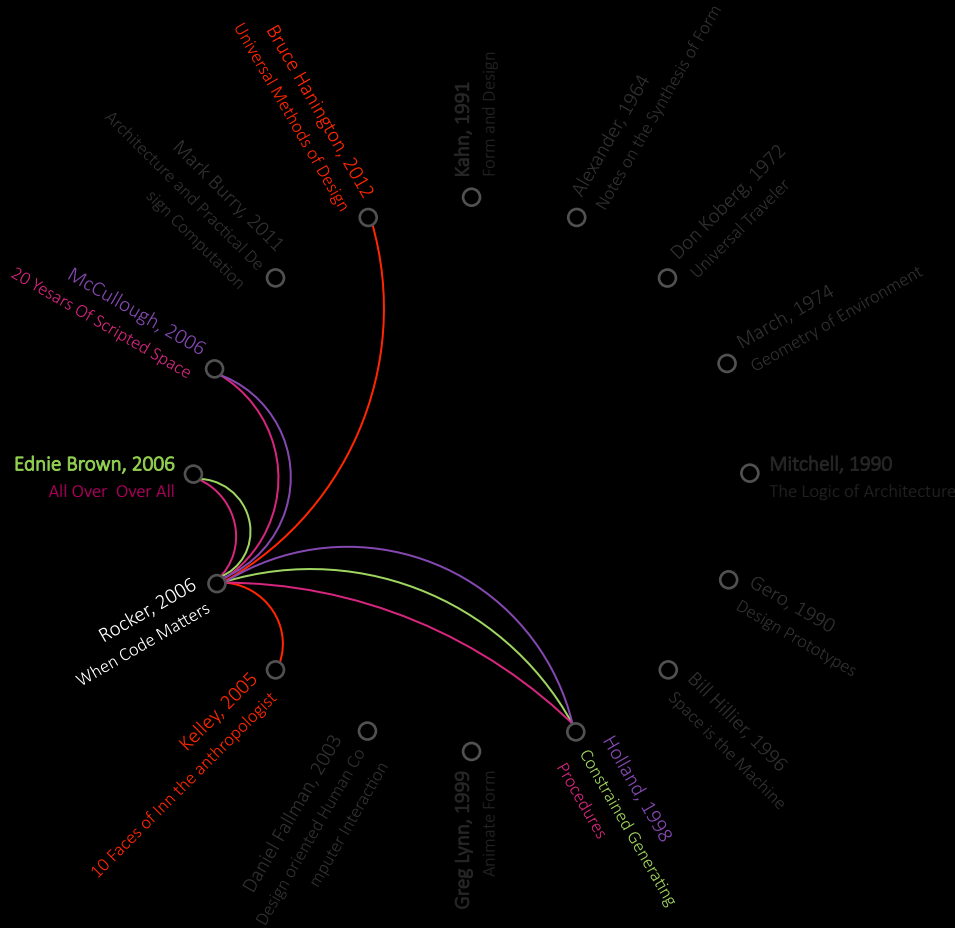
KEY WORD

- Algorithm
- Computational Design
- Design Process
- Emergence
- Form
- Geometry
- Methodology
- Organization
- Scripting

Strategy
is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM



KEY WORD

Algorithm

is an effective method expressed as a finite list of well-defined instructions for calculating .

Computational Design

Design Process

Emergence

is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

Geometry

Methodology

Organization

Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy

is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM

20 Years Of Scripted Space, 2006

MALCOLM MCCULLOUGH

Scripting is a tool by which the designer can more efficiently express and explore its creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

Universal Methods of Design, 2012

BRUCE HANINGTON

The book introduces the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

10 Faces of Inn the anthropologist, 2005

TOM KELLEY

The book discusses the limitations of the "devil's advocate" approach to interactions, which he reports can stifle early innovation. Tom puts forth ten other roles that can be helpful in design: anthropologist, experimenter, cross-pollinator, hurdler, collaborator, director, experience architect, set designer, caregiver, and storyteller.

Constrained Generating Procedures, 1998

JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.

KEY WORD

Algorithm

is an effective method expressed as a finite list of well-defined instructions for calculating .

Computational Design

Design Process

Emergence

is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

Geometry

Methodology

Organization

Scripting

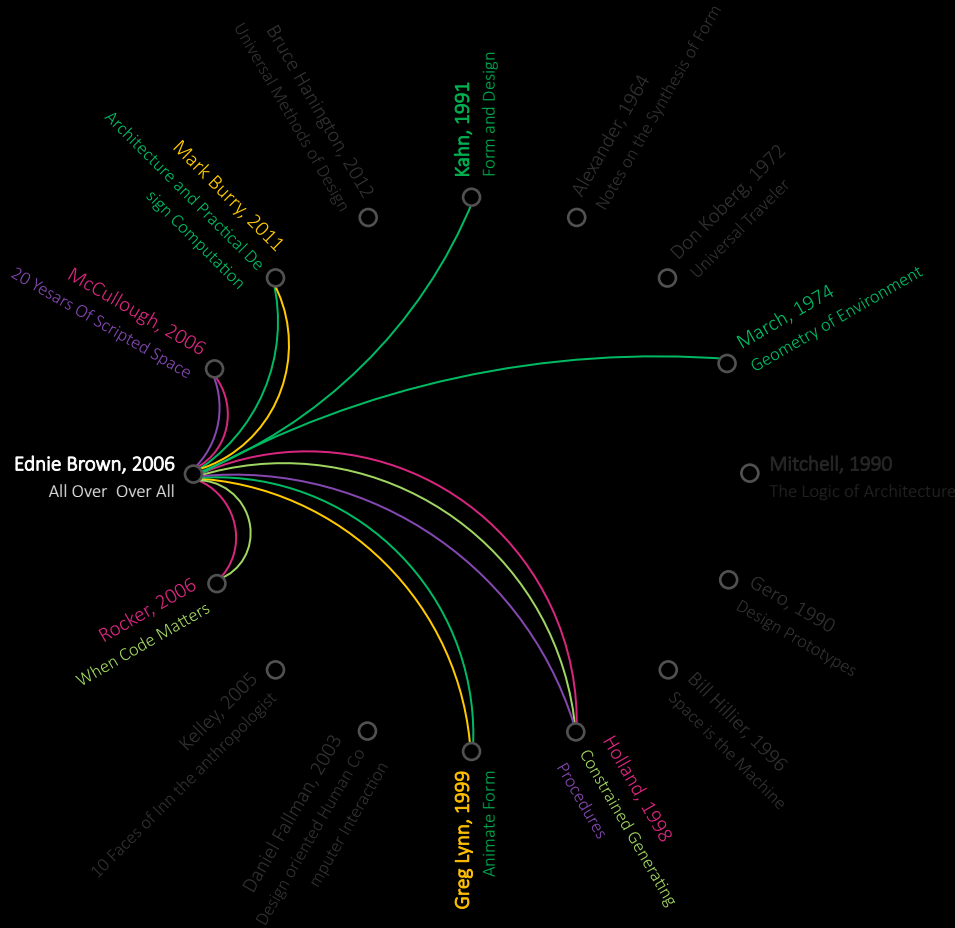
is a programming that could alternatively be executed one-by-one by a human operator.

Strategy

is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM



KEY WORD

Algorithm

is an effective method expressed as a finite list of well-defined instructions for calculating .

Computational Design

is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

Methodology

Organization

Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM

Architecture and Practical Design Computation, 2011

MARK BURRY

Mark Burry tracks the development of specific geometric and procedural methods driven by the critical nature of connecting computational form with material form. It is the challenge in identifying how particular mathematical means for generating geometry may not align with rules which relate to scalar issues of structure, materiality and assembly.

20 Years Of Scripted Space, 2006

MALCOLM MCCULLOUGH

Scripting is a tool by which the designer can more efficiently express and explore its creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

Ednie Brown, 2006

All Over Over All

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

Form and Design, 1961

LOUIS KHAN

Kahn argues that particular buildings of the same type share an archetypal essence, or "form," which is transcendent. "form" and "design" openly acknowledge the tension between the timeless aspects of architecture and the quotidian processes that frame the design and construction of particular buildings.

Geometry of Environment, 1974

LIONEL MARCH

It is an introduction to spatial organization in design. This geometry consists of transformations that are related with the idea of mapping. The first essential transformation is one that does absolutely nothing, the identity transformation; object is left completely unaltered. When the prints of an object are taken, isometrics of the original are produced.

Constrained Generating Procedures, 1998

JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.

Animate Form, 1999 & 2011

GREG LYNN

Lynn discusses animation and its applications in architecture. Animation is not movement, it is the evolution of a form. The design field deal with space as an environment with forces and motion. While physical forms are often conceived of in terms of statics, the forces of the environment can help inform how these forms take shape.

KEY WORD

Algorithm

is an effective method expressed as a finite list of well-defined instructions for calculating .

Computational Design

is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

is a pervasive phenomenon found in contexts as different as games, seeds, and scientific models.

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

Methodology

Organization

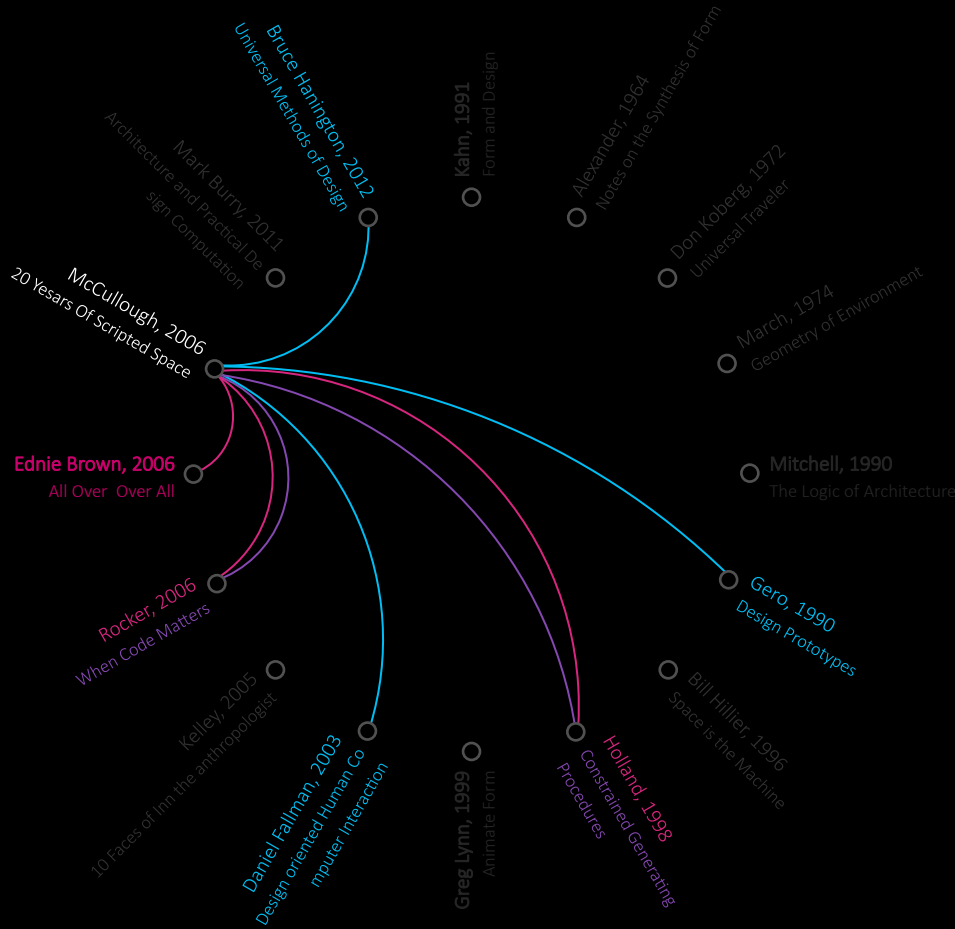
Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

is an effective method expressed as a finite list of well-defined instructions for calculating .

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

is the systematic, theoretical analysis of the methods applied to a field of study.

Organization

Scripting

is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM

Universal Methods of Design, 2012
BRUCE HANINGTON

The book introduces the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful products.

20 Years of Scripted Space, 2006
MALCOLM MCCULLOUGH

Scripting is a tool by which the designer can more efficiently express and explore its creativity. Not simply a form-finding end. The use of graphical user interfaces allows designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

All Over Over All, 2005
PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biothing approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

When Code Matters, 2006
INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

Bruce Hanington, 2012
Universal Methods of Design

Mark Burry, 2011
Form and Practical Design Computation

McCullough, 2006
20 Years of Scripted Space

Ednie Brown, 2006
All Over Over All

Rocke, 2006
When Code Matters

Kelley, 2005
The anthropologist

Daniel Fallman, 2003
Design-oriented Human Computer Interaction

Greg Lynn, 1999
Animate Form

Holland, 1998
Constrained Generating Procedures

Bill Hillier, 1996
Space is the Machine

Mitchell, 1990

Design-oriented Human Computer Interaction, 2003
DANIEL FALLMAN

This paper focuses on what design 'is' and how it is related to. In conclusion, it is proposed that we need to acknowledge, first, the role of design in HCI conduct, and second, the difference between the knowledge-generating Design-oriented Research and the artifact-generating conduct of Research-oriented Design.

Constrained Generating Procedures, 1998
JOHN HOLLAND

John Holland expands upon the computational mechanisms underlying emergent systems. The system containing emergent characteristics which are the properties of a 'model' can be produced. The key feature of the procedures is the 'transition function', which is a mapping of the possible states of a system that can arise from this function.

Design Prototypes, 1990
JOHN S. GERO

This article discusses an elaboration of models. It then introduces and describes a knowledge representation schema for design called design prototypes. This schema supports the initiation and continuation of the act of designing. Design prototypes are shown to provide a suitable framework to distinguish routine, innovative and creative design.

KEY WORD

Algorithm
is an effective method expressed as a finite list of well-defined instructions for calculating .

Computational Design

Design Process

Emergence

Form

Geometry

Methodology
is the systematic, theoretical analysis of the methods applied to a field of study.

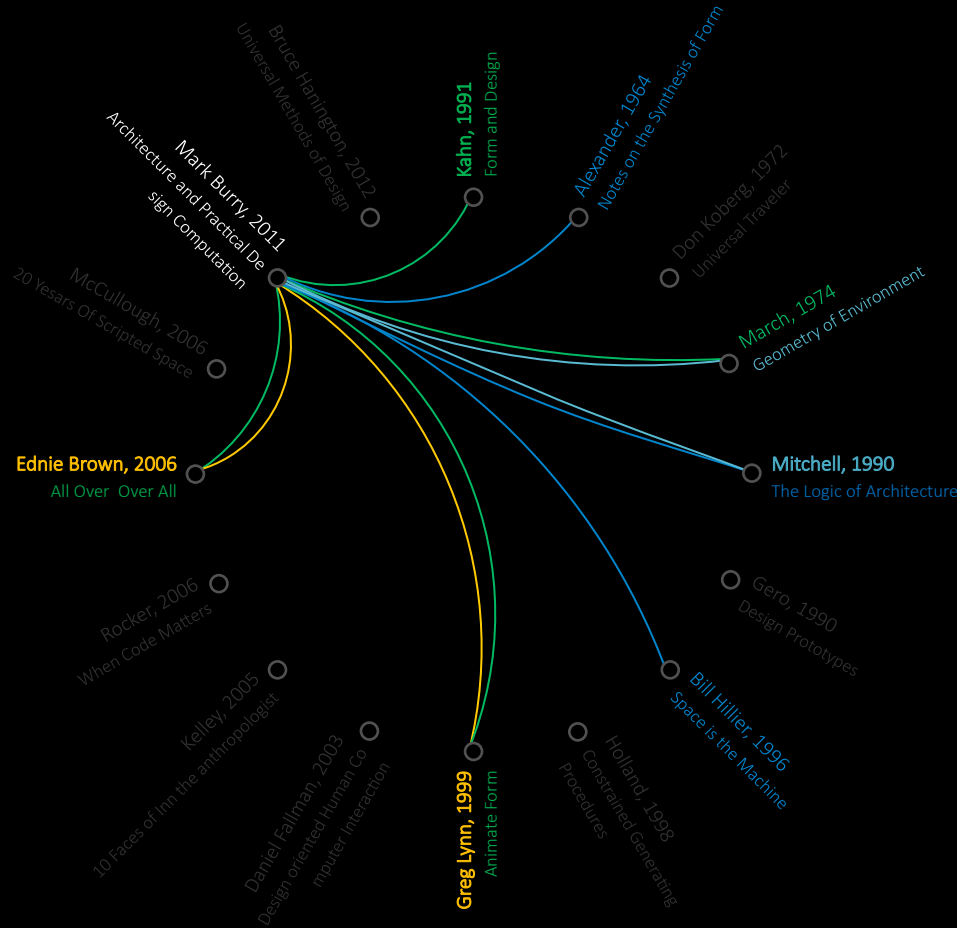
Organization

Scripting
is a programming that could alternatively be executed one-by-one by a human operator.

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM

Form and Design, 1961

LOUIS KHAN

Kahn argues that particular buildings of the same type share an archetypal essence, or "form," which is transcendent. "form" and "design" openly acknowledge the tension between the timeless aspects of architecture and the quotidian processes that frame the design and construction of particular buildings.

Architecture and Practical Design Computation, 2011

MARK BURRY

Mark Burry tracks the development of specific geometric and procedural methods driven by the critical nature of connecting computational form with material form. It is the challenge in identifying how particular mathematical means for generating geometry may not align with rules which relate to scalar issues of structure, materiality and assembly.

Ednie Brown, 2006

All Over Over All

ALL OVER OVER ALL, 2005

PIA EDNIE BROWN

Emergence. Much coming from little. Simple rules can generate complexity. In this sense, the biotching approaches to generative design practice through the use of computational systems that underscore multiple-scaled expressions. For example, they explore how computational patterns can actively link projects, traverse scales and function.

Animate Form, 1999 & 2011

GREG LYNN

Lynn discusses animation and its applications in architecture. Animation is not movement, it is the evolution of a form. The design field deal with space as an environment with forces and motion. While physical forms are often conceived of in terms of statics, the forces of the environment can help inform how these forms take shape.

Notes on the Synthesis of Form, 1964

CHRISTOPHER ALEXANDER

Alexander defines design as "the process of inventing things which display new physical order, organization, form, in response to function.", and discusses the process by which a form is adapted to the context of human needs and demands that has called it into being. Such an adaptive process will be successful only if it proceeds piecemeal instead of all at once.

Geometry of Environment, 1974

LIONEL MARCH

It is an introduction to spatial organization in design. This geometry consists of transformations that are related with the idea of mapping. The first essential transformation is one that does absolutely nothing, the identity transformation; object is left completely unaltered. When the prints of an object are taken, isometrics of the original are produced.

Mitchell, 1990

The Logic of Architecture, 1990

WILLIAM J. MITCHELL

Mitchell provides a detailed discussion of languages of architectural form, their specification by means of formal grammars, their interpretation, and their role in structuring design thinking. Mitchell considers how buildings may be described in words and shows how such descriptions may be formalized by the notation of first order predicate calculus.

Space is the Machine, 1996

BILL HILLIER

Buildings and cities are complex networks of space which support activities, movement and interaction. "Space is the machine" shows tools and techniques to understand the abstract interaction network from cities and buildings", and proposes to architects the challenge to design and make architecture based on scientific and meticulous knowledge of a space.

KEY WORD

Algorithm

Computational Design

is the discipline for developing and/or applying computational approaches to problems.

Design Process

Emergence

Form

is the shape, visual appearance, constitution or configuration of an object.

Geometry

is a branch of mathematics concerned with shape, space, and relative position of figures.

Methodology

Organization

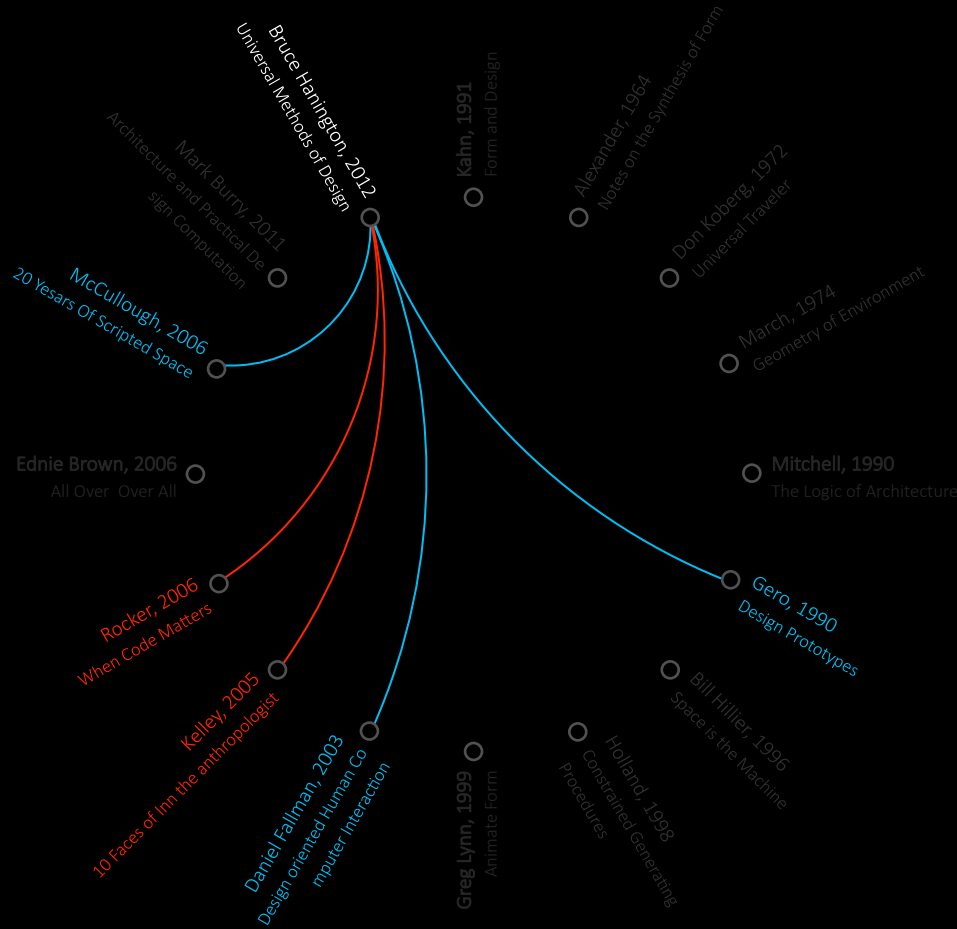
is an entity that has a collective goal and is linked to an external environment.

Scripting

Strategy



CORRELATION DIAGRAM



KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

is the systematic, theoretical analysis of the methods applied to a field of study.

Organization

Scripting

Strategy

is a high level plan to achieve one or more goals under conditions of uncertainty.



CORRELATION DIAGRAM

20 Years Of Scripted Space, 2006

MALCOLM MCCULLOUGH

Scripting is a tool by which the designer can more efficiently express and explore its creativity. Not simply a form finding end. The use of graphical user interfaces allow designers to engage in parametric design or task automation which allow play and manipulation within the parameters of established software without the writing of any real code.

When Code Matters, 2006

INGEBORG M ROCKER

Simplest possible rules can yield highly complex behavior. Algorithmic structures represent abstract patterns that aren't necessarily associated with experience and perception. Algorithms used to be used to simplify complexity, now its used in computation to generate complexity. Architecture has always been bound by code in the form of rules.

10 Faces of Inn the anthropologist, 2005

TOM KELLEY

The book discusses the limitations of the "devil's advocate" approach to interactions, which he reports can stifle early innovation. Tom puts forth ten other roles that can be helpful in design: anthropologist, experimenter, cross-pollinator, hurdler, collaborator, director, experience architect, set designer, caregiver, and storyteller

Universal Methods of Design, 2012

BRUCE HANINGTON

The book introduce the design/usability research techniques, presented alphabetically as well as with numeric hints indicating which is best suited to different phases of a project. The methods and techniques can provide us a chance to structure conversations, which can help us better understand with people, and as a result build meaningful product.

Design oriented Human Computer Interaction, 2003

DANIEL FALLMAN

This paper focus on what design 'is' and how it is related to. In conclusion, it is proposed that we need to acknowledge, first, the role of design in HCI conduct, and second, the difference between the knowledge-generating Design-oriented Research and the artifact-generating conduct of Research-oriented Design.

Design Prototypes, 1990

JOHN S. GERO

This article discusses an elaboration of models. It then introduces and describes a knowledge representation schema for design called design prototypes. This schema supports the initiation and continuation of the act of designing. Design prototypes are shown to provide a suitable framework to distinguish routine, innovative and creative design.

Bruce Hanington, 2012
Universal Methods of Design

MCCullough, 2006
20 Years Of Scripted Space

Rocker, 2006
When Code Matters

Kelley, 2005
10 Faces of Inn the anthropologist

Daniel Fallman, 2003
Design oriented Human Computer Interaction

Gero, 1990
Design Prototypes

KEY WORD

Algorithm

Computational Design

Design Process

Emergence

Form

Geometry

Methodology

is the systematic, theoretical analysis of the methods applied to a field of study.

Organization

Scripting

Strategy

is a high level plan to achieve one or more goals under conditions of uncertainty.

