Architectonic design is form which embodies the essence of an idea. The elements and structure of architectonic design exist solely to physically manifest the essence of an idea. The process of architectonic design involves a reduction of elements, in order to arrive at a point of balance such that if any one element were subtracted, added or moved, the design would become imbalanced and the clarity of the idea would be destroyed.

It is a reductionist design of precision, balance and beauty which expresses only the essence of an idea.

Abstraction is the identification of those structures present in any condition which are essential to its existence. Abstraction is the essence of reality. To extract the essence of many styles of architecture, by identifying those structures which are common to all of them, is to abstract architecture.
The term architectonic and more specifically, the Greek word tekton alludes etymologically to the metier of the carpenter and therefore not only to the maker of the primitive Greek temple but also to the primordial role of the frame and the joint in the genesis of any built construction.

Kenneth Frampton on architectonics

The generic term architectonic refers not only to the technical means of supporting the building, but also to the myth and the reality of this structural achievement.

This applies to all architectonic forms, irrespective of whether the element is a frame and hence stereotomic. Stereotomy: the science or art of cutting solids into certain figures or sections, as arches, and the like; especially, the art of stonecutting.

architectonics refers to the first maker, the first carpenter, the first frame and joint, the first structure
The study of architectonics encourages the student to arrive at a clear and thorough examination and understanding of the **fundamental singular events, concepts, orders, and elements** which comprise the highly complex organism of architecture.

if we look at the dictionary definition of architectonic we see that it is about having to do with architecture, construction, or design specifically as a science showing a skill in construction or design directive, controlling or the arrangement of knowledge

architectonics is the science of architecture: or any skill resembling this especially in the design of a work of art; or the product of this work
Abstraction in architecture is the identification of those structures present in any condition which are essential to its existence. It is the ability to identify numerous underlying layers inherent to a structure.
The designer can generate diagrams of underlying orders which are abstractions of architecture. Architectonics is an abstraction of many architectures. It describes the essence of those architectures.

Appropriate placement of form on a given site requires a methodological analysis designed to identify the existing underlying orders of a site.

This ability to perceive the structures while composing them would not have been possible if he/she had not initially gone through the process of isolating the structures, in order to clearly see them. This process encourages the student to develop an articulate eye and an analytical approach to perceiving the singular layers contained in a complex piece of architecture.

One should not confuse analysis with design. These underlying orders exist within a structure and are there to be discovered.
Architectonics can be used as a highly responsive tool for learning and understanding architecture. Architectonics inherently contains the fundamental concepts, orders, and elements of architecture.

Architectonics can substantially develop one’s creative sensibility.
pre-architectonics

the origins of modern architectonics
Albers
Mondrian
...we have presented a studio course, or if you prefer, a laboratory or workshop course which opposes an administrative attitude of “theory and practice.”

Josef Albers: Bauhaus student and Master

Albers influence
studio course as a laboratory or workshop
teaching and learning through experience
discovery and invention develops creativity
thinking in situations
creativity, flexibility, imagination and fantasy.
presents a basic step by step learning process
insight coming from experience, and evaluation resulting from comparison.
development and improvement; growth, growth of ability.
search instead of research, for learning through conscious practice.
an assemblage
almost like a sculpture
improvisational dynamics of found materials
found pieces of colored glass;
made something unexpected
color, light, texture, materials

was a student when he did this.
typical of what he did.

Josef Albers: Figure 1921
Skyscraper III 1927, Josef Albers

demonstration of horizontal vs. vertical thick and thin.
etched opaque glass
rhythms
horizontal and vertical
changing thicknesses
define spatial precincts
orthogonal restriction
Josef Albers’ Bauhaus preliminary course exercise

a demonstration of rhythmic relief as potential landscape.
composition with found materials
Josef Albers, America 1949-50
demonstration of positive and negative horizontal and vertical gridding.
homage to the square

600 experiments in pigment (acrylic) and relationships of colors
used the same shape and orientation of arrangements
4 formats
proportional relationships in formatting
600 experiments in pigment (acrylic) and relationships of colors
used the same shape and orientation of arrangements
4 formats
proportional relationships in formatting
applied with a painting knife on masonite board
acrylic.
used colors straight out of the tube; no mixing
collected tubes from numerous manufacturers
wrote the names of the colors on the back of each painting

key lessons to Albers’ underlying spirit
continuity of the steps in the process & its relationship to final product
its about devising an idea,
revising the idea,
adjusting it, evolving it,
and transforming it into innumerable possibilities
Homage to the Square, Albers

applied with a painting knife on masonite board acrylic.
used colors straight out of the tube; no mixing
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adjusting it, evolving it,
and transforming it into innumerable possibilities
he was inspired by American Jazz while living in NYC
he later named his paintings after popular Jazz trends
Piet Mondrian

he was a founder of the Destijl movement (Dutch); Neo Plasticism
he started as a landscape painter and moved progressively toward reduction, minimalism, and uncompromising abstraction
seeking universal harmony
ironically his work became extremely personal and individual
Piet Mondrian

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he started as a landscape painter and moved progressively toward reduction, minimalism, and uncompromising abstraction seeking universal harmony

ironically his work became extremely personal and individual
“Foxtrot A” and “Broadway Boogie-Woogie”

all elements presented as a rational orthogonal grid
the field could be rotated, the elements had to stay orthogonal
like a perspective, but flat
looks sterile in this graphic but in reality you can see the process of making
the human hand painstakingly trying to achieve the universal;
the ideal essence
through several layers.
always made minute adjustments to the thicknesses and relationship of linear elements
reductive, pure
later on used colored tapes to design
a collage process
design process; testing, comparison
speed up the process of testing the composition
photograph of Mondrian’s studio on 59th street, New York showing Victory Boogie-Woogie en point on his easel

It was his last painting.
unfinished
Robert Slutzky has meditated on the problems emanating from his basic conviction that a law or a concept must be the source of a work of art. Such a conviction is deeply rooted in his temperament, for while other young painters were swept into the marvelous anarchy of abstract expressionism, he had stubbornly set himself the task of studying and extending the meaning of Mondrian's "pure plastic painting".

With dogged insistence Slutzky followed deStijl dicta. Mondrian had described for himself a number of principles from which he could extrapolate endlessly. Among them, the principle of the right angle, or straight line, and the limitation of the palette to the primary colors.

While a student at Yale University's graduate school, Slutzky developed his knowledge of Mondrian's painting philosophy. At the same time, he listened to and pondered the message of Josef Albers whose own painting deductions had brought him to an exclusive devotion to color as light. Albers criticizied Slutzky for his slavish attitude toward deStijl principles and attempted to mitigate his orthodoxy.
The fact that Albers himself was a painter devoted to law (in the sense that he acknowledged the underlying physical laws of color as light) made their concourse possible. Albers recognized in Slutzky a poetic tendency that he eventually succeeded in releasing. Slutzky finally attempted to "synthesize the two streams," in the effort, he arrived at the heterodox position (the position of not being in agreement with accepted beliefs, especially in church doctrine or dogma or holding unorthodox opinions). He has never abandoned this position since.

Pure plastic painting is the intrinsically structured dialogue between drawing and color. Each informs the other in a manner that results in a permanently fixed physical construct that, by its intentional ambiguity, remains perceptually elusive. This manner, consciously excludes extrinsic sources, traditionally referred to as "subject matter" or "representational imagery."

The energy sources for this painting are no longer fossilized fuels, instead, they are the atoms of its own existence. They are logical extensions of the two-dimensional plane and the spherical world of color.
Its expression includes horizontal and vertical; point, line and plane; center and periphery; tension, compression and shear; symmetry and asymmetry; number, scale and proportion; arithmetics and mathematics; figure and ground; constellations and closures; gravity and buoyancy; hue, value and chroma; halation (blurring) and afterimage; deep and shallow space.

With these brute and uncompromised means, it is possible to forge illusions of the most ethereal kind, illusions that pulsate with tectonic clarity, illusions that offer visual sound. Like music, it invites the perfect union of concept and percept...enabling us to transcend the world of "definitions" "opinions," and "explanations" to witness ineffable timelessness.
Slutzky's mature painting uses certain elements that can be derived as easily from music or poetry as from the past of painting. There is, first of all, specific rhythm in the way he allocates complementary and tertiary colors. There is also rhyme. There are pitches (intense chrome or recessive). There are intervals (the measured spaces between references to primary or secondary colors). Often, there are schema that can be analyzed as ABA, BCB etc., much as in poetry. Or there are the equivalents to the musical canon, which he sometimes doubles or reverses as in a mirror-canon. Slutzky himself is keenly aware of his allegiance to the terms of music. He has compared certain of his works to Gregorian chants and others to Beethovenian dialogues. He has seen in Mondrian a thrust toward pure musicality. Most of all, he has coveted the order that the terminology of music provides. Like most painters in the family that seeks a rational basis for painting, he must speak in terms of a vocabulary and syntax, both of which the tradition of musical composition retains.
john hejduk 1929-2000
I don’t believe anybody can conceive a building in three dimensions. A fragment perhaps, but not the totality.”

-Hejduk
architecture is in a depressed state
Hejduk - seven texas houses

variations on a theme
ph pencil
saw the drawings at an exhibit in 1980

Hejduk left Texas and returned to Cooper Union where he later became Dean until his death in 1999.
He continued to develop and teach the nine-square grid problem
The idea of *The Center* and of the periphery. 1 center cell and 8 peripheral cells.

The nine square falls between two poles, one of complete fluidity and one of complete containment.

**nine-square grid problem**

Present within these architectural plans and the nine square grid are the principles and structure of architecture:

- core–periphery
- orthogonal–diagonal
- hierarchy
- axis–cross axis
- primary–secondary edge
- inside–outside
- symmetry
- centrality
- point–line–plane
- celebrated space
- path and place
From a later nine-square grid at Cooper Union. The nine square grid (model) consists of a black base on which columns, placed in such a manner as to form a square consisting of nine equal bays. The design elements, which are used in conjunction with this structure, consist of:
grey panels (straight and curved), white volumes (square, cylindrical and triangular), stairs, ramps, horizontal slabs and vaults.
The structural constants are the single height grid with round or square columns and the double height grid with round or square columns.

Each design project is comprised of one concept, only a few very specific underlying orders, and a limited number of elements
CONCEPT: path; UNDERLYING ORDERS: procession, transformations/metamorphosis, repetitions, rhythm/arhythm;
ELEMENTS: one black base, sixteen square white columns and no more than nine grey panels;
DESIGN INTENTIONS: one symmetrical design as procession through panels and one asymmetrical design as procession of panels.

These restrictions are maintained in order to encourage a highly focused investigation of profoundly fundamental issues.
A clarity of the architectonic issues will lead to a sophisticated understanding of the complex volumetric interrelations of the architectural events.
the Bye House; one of many "wall" houses
Hejduk sketches; typical of what he did during his last 20 years.
The Thirteen Watchtowers of Cannaregio 1979

metaphorical; poetry; a script to the formalism
embracing buildings; humorous juxtapositions

architectures in love 1995
Catholic sensibilities; Hejduk was obsessed with a house on its own island, Villa Malaparte designed by Italian Rationalist architect Adalberto Libera, 1937.