Stockholm Culture Award

Nikos A. Salingaros
Award Ceremony at the House of Nobility
Stockholm, Sweden, 9th of March 2019
2019 Award: Architecture

Confers on Dr. Nikos A. Salingaros its 2019 medal for his cultural deeds in establishing a fractal-based mathematical theory for architecture, city planning and design that is more adaptive to human needs. The Stockholm Cultural Awards board regards Professor Nikos Salingaros as one of the most distinguished architectural theorists in the world today.
Stockholm Culture Awards
Is beauty the purpose of life?
Evolution hard-wired us for beauty

- We recognize and seek patterns that are essential for our health
- Mathematical patterns triggered the evolution of our neural system to profit from them
- Neural responses instinctively privilege those patterns
Nature is healing
Our internal patterns influence us

• Ordinary people use their intuition to seek healing effects of the environment
• As argued by Ary Goldberger in 1996, what we create reflects the structure of our brain
• But this is only true for unselfconscious creation, which relies upon direct human feeling and feedback
Left: an explicit center. Right: an implicit center
Biophilia: two distinct components

1. Healing from intimate contact with living forms, natural views, and urban spaces that catalyze encounters among human beings

2. Mimick the mathematical processes that generate biological forms — organized complexity produces ornamentation.
Forms shaped according to human feeling
Higher-level patterns

• Christopher Alexander’s “Fifteen Fundamental Properties”
• Alexander et al.’s “Design Patterns” exist on the architectural and urban scales
• Design Patterns combine geometry with social function, as discovered in healing environments
Scaling symmetry relates arches of several different sizes
Traditional and vernacular architectures

• For millennia, traditional built forms were laboratories for neurological testing
• The healing results are embedded in historical and vernacular architectures
• “Design Patterns” are discovered as the design foundation of those structures
Spaces shaped by human movement
An old mystery explained

• Neuroscience research is finally clearing up a decades-long mystery — why the architectural tastes of common people and trained architects tend to be opposite

• Michael Mehaffy and I termed this effect “Architectural Myopia” (2011)
LEFT: minimalist design exhibits only one scale.
RIGHT: traditional artifact shows 6 obvious scales, with 3 more if examined more closely.
Fight-or-flight response

• Different buildings, surfaces, and enveloping spaces trigger either a healing, or fight-or-flight response

• These measurements are easy and straightforward (except for one very serious complication, explained below)
Monotonous repetition is bad
Cognitive dissonance

• Whenever experimental results threaten to invalidate architectural icons, cognitive dissonance forces people to protect the *status quo*

• Many architects dismiss the topic of neuroscience by ignoring the data, or attacking the researchers
Vertical monotony is bad
Modernity = power = fragility

• Sleek abstractions train the brain *not* to see the complexity of living systems
• Cultural modernism worships images of shiny machines from the 1920s
• Cult ideology of monotonous design
• Resilience cannot be implemented within a fragile built environment
Maximum consumption of fossil fuel
Inviolate architectural icons

- Persons uncritically accept the exalted status of “famous” architects
- They sacrifice their city to boost those — and only those — favored architects
- What the architectural regime touts as paradigmatic positive examples elicit, in fact, strongly negative responses
Design for minimum energy consumption
What do we expect to validate?

• Traditional and vernacular buildings from the cultures of every country and region: African, Chinese, Greco-Roman, Islamic, Japanese, Scandinavian, etc. are healing

• Boost neural responses to environments

• Use invariant typologies and neuroscience in a new, wonderful architecture — *yes,* *this is now possible!*