

Applied Neuroscience for Architects Essential Reader

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I grew my essentials list for architect (AIA) and student (KSU) audiences who have asked for more information, particularly accessible texts. *Applied Neuroscience for Architects Essential Reader's* unfolding is my best attempt to bridge, or focus on, the intersection of architecture and the biology of perception that is within the research of neuroscientist. My inspiration, I believe the architecture profession will earn enormous benefit from expertise in human perception understood as behavior within built environments. I teach a graduate seminar in Architecture and Neuroscience over more material than this highly condensed outline below, but I hope it is an invitation to the party. The videos below are an especially accessible manner to introduce yourself to the important language about our relationship to space where architecture is the verb. In simple terms that designers should understand, the biological science today suggests a new theory for architectural practice where one's aesthetic experience of space is – at least in good sensory measure – founded in the human body\brain. My edit (herewith) narrows to a model of human acuity where architecture is implicit as kinesthetic, immediate, emotive and meaningful. The body measures architecture.

A Note from the A↔N Blog Editor:

Readers will find in Bob Condia's list a variety of essential readings for devotees and neophytes of neuroscience for architecture. But many of you will have further suggestions. If so, please send them in the form of Citation+Abstract+Reasons-for-your-recommendation to Robert Condia <condia@ksu.edu> and Michael Arbib <arbib@usc.edu> for consideration for Inclusion In future editions of this reading guide.

The essentials for a contemporary theory about mirror mechanisms, embodiment and affordances:

- Mallgrave, Harry, *From Object to Experience*.
- Mallgrave. *Architecture and Embodiment: The Implications of the New Sciences and Humanities for Design*.
- Mallgrave, Harry Francis: *The Architect's Brain*.
- Robinson and Pallasmaa, editors; *Mind in Architecture*.
- Zeki, Semir: *Inner Vision*.
- Zumthor, Peter: *Atmospheres*.
- *The Questions of Perception*, Steven Holl, et. al.
- *Architecture And Neuroscience*. Edited by Philip Tidwell. A Tapio Wirkkala - Rut Bryk Design Reader published by the Tapio Wirkkala-Rut Bryk Foundation with contributions from Mallgrave, Pallasmaa and, Arbib; <http://www.anfarch.org/wp->

[content/uploads/2014/01/Helsinki-2013-Architecture-Neuroscience.pdf](http://www.anfarch.org/wp-content/uploads/2014/01/Helsinki-2013-Architecture-Neuroscience.pdf)

- *Architecture and Atmosphere*. Edited by Philip Tidwell. A Tapio Wirkkala - Rut Bryk Design Reader published by the Tapio Wirkkala-Rut Bryk Foundation with contributions from Gernot Böhme, Tonino Griffero, Jean-Paul Thibaud, and Juhani Pallasmaa.
- Girffero, Tonino, *Atmospheres: Aesthetics of Emotional Spaces*.
- Gibson, James J. *The ecological approach to visual perception: classic edition*. Psychology Press, 2014.
- Mallgrave, Pallasmaa and, Arbib Architecture And Neuroscience; @ <http://www.anfarch.org/wp-content/uploads/2014/01/Helsinki-2013-Architecture-Neuroscience.pdf>
- Jelic, Andrea, et. al. "The Enactive Approach to Architectural Experience: . . ." *Front. Psychol.*, 31 March 2016 | <https://doi.org/10.3389/fpsyg.2016.00481>
- Eberhard, John. *Architecture and the Brain: A New Knowledge Base from Neuroscience* (this is the origin of the species and still a fine introduction to the cause of architects learning from scientists, and scientists learning from architects).

Essential viewing are TED Talks:

- Bobby McFerrin, "Watch me play . . . the audience;"
 - V.R. Ramachandran, "The neurons that shaped civilization;"
 - Antonio Damasio, "The quest to understand the consciousness;"
 - Alva Noë "Getting out of our Heads," (YouTube)
 - Iain McGilchrist, "The divided brain."
 - "Imagination and Empathy," Juhani Pallasmaa, from the Academy for Neuroscience and Architecture's September 2014 meeting, "www.youtube.com/watch?list=PLJrgKNDl6LrzZzoinPvGeCqNI5uZUFaF&t=17&v=hnsvTrCtuuQ"
 - Denis Dutton's TED Talk, "A Darwinian theory of beauty."
 - Dance As A Way Of Knowing: Interview with Alva Noë at <https://www.youtube.com/watch?v=FbWVERm5bsM>;
 - Michael Arbib, "[Why] Should Architects Care About Neuroscience," viewing see at: "<https://www.youtube.com/watch?v=R6P8uoHOuJ4>"
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- **Our all video report, for those without the readers' inclination, can visit Andrew Huss' all video site for architects, or students of architecture <TRIPTYCHapn.org>.**