American Museum of Natural History

BRAIN

The Inside Story

Light-up models of the brain reveal the sections that control senses, memory, language, and more.

After memorizing maps, London taxi drivers have significantly bigger hippocampuses than average.

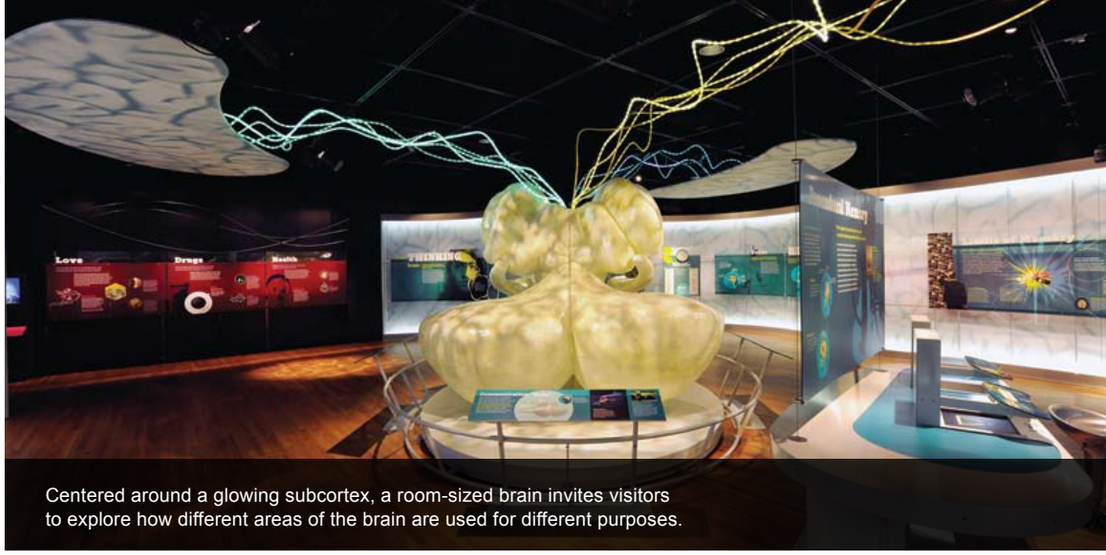
OVERVIEW

In ***Brain: The Inside Story***, visitors discover the workings of our most amazing organ. **Drawing on 21st-century research and technology**, the exhibition brings visitors up to date on the **latest in neuroscience**, highlighting the brain's surprising ability to rewire itself in response to experience, disability, or trauma, and showcases new technologies that researchers use to study the brain. **Interactives, puzzles, brain-scan imaging, and spectacular models** explore senses, emotions, thoughts, brain development, and even brains in the future. From a **real plastinated brain** to **dazzling art** installations revealing our own perceptions, ***Brain: The Inside Story*** comes alive with fascinating discussions on how our minds work.

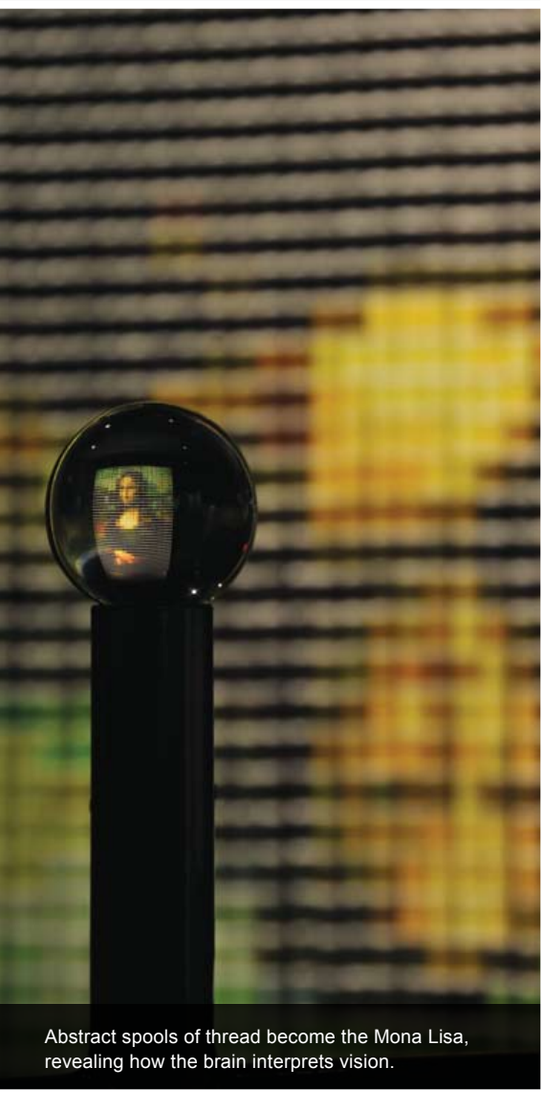
HIGHLIGHTS

- **Gorgeous works of art** that help illustrate the workings of the brain
- An interactive **gesture table** that lets visitors use their hands to understand how neurons communicate with each other
- Beautiful neuron models in oxblood resin, with computer-controlled lighting that simulates the exchange of neurotransmitter messages
- **A giant projection of a human face** expressing emotions, linked to fMRIs of brains processing those specific feelings
- Computer interactives such as a **language acquisition game** and **games designed to boost your grey matter**
- Physical interactives such as **star tracing, number chunking, color concentration, and stacking games**

Visitors discover how the blind “see” Braille.



Centered around a glowing subcortex, a room-sized brain invites visitors to explore how different areas of the brain are used for different purposes.



Abstract spools of thread become the Mona Lisa, revealing how the brain interprets vision.

A stacking game requires the brain to plan in advance.

PRESS QUOTES

“An interactive sensory feast that both surprises and stimulates”

– Live Science

“Includes plenty of interactive displays where adults and kids can take their brains for a kind of test run”

– Star-Ledger

“Exhilarating”

– The Examiner

“Super cool”

– FoxNY

“A really immersive exhibit and there’s a lot for kids”

– CBS

“Utilizing plenty of 21st century techno-wizardry”

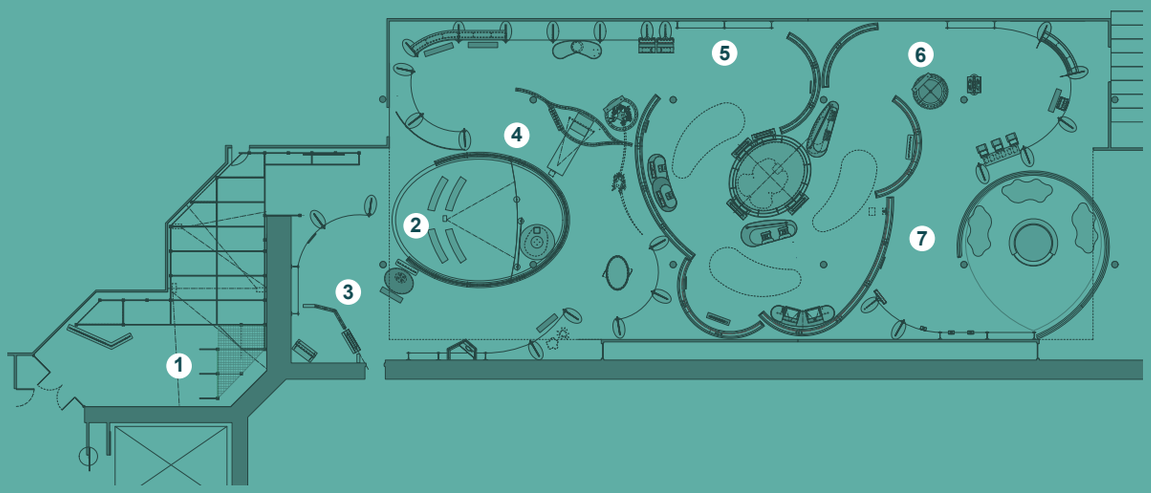
– MetroMix

“There is no better way to see the organ as many a brain scientist does”

– Science

EXHIBITION SECTIONS

1. Introduction
2. Introductory Theater
3. Sensing Brain
4. Your Emotional Brain
5. Your Thinking Brain
6. Your Changing Brain
7. Your 21st-Century Brain



1. INTRODUCTION

Visitors view a **real preserved human brain** before being plunged into a **dramatic and dazzling art installation** by Spanish artist Daniel Canogar. Light races across wires in a darkened room, capturing the frenetic energy of firing neurons.

2. INTRODUCTORY THEATER

To learn some basics about the brain and how it functions, visitors follow a Julliard dance student during an audition. A **video projection** shows how her activities simultaneously correlate with activity in her brain through the illumination of a **large three-dimensional brain model** in the theater.

3. SENSING BRAIN

Our senses help us process the outside world. Here, visitors explore their own senses such as sight through **an installation by artist Devorah Sperber**, sound through a surprising aural illusion, and touch through a six-foot-tall homunculus representing how the brain allocates space to touch.

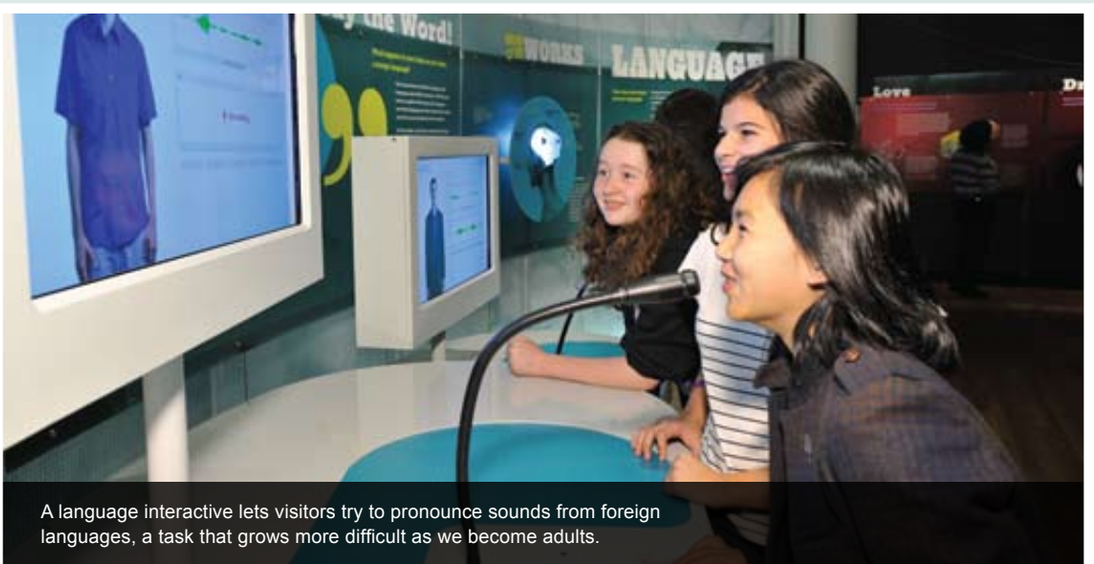
5. YOUR THINKING BRAIN

Visitors walk through a **room-sized "brain"** centered around **a sculpture of the subcortical brain**, 35 times larger than life. Different areas of the brain control abilities such as language acquisition, memory, and decision-making. Each area **features imaginative interactives** revealing how the brain works. Begin to learn a new language, discover the differences between short-term, long-term, and procedural memory, plan your moves in a strategy game, and find out why London cabbies have bigger hippocampuses.

6. YOUR CHANGING BRAIN

This part of the exhibition examines the brain's development over a lifetime and its amazing ability to rewire itself. A **touchable Braille interactive** allows visitors to try using their sense of touch to read. A **preserved brain** reveals the damage done by Alzheimer's, while **brain games** help maintain visitors' sharpness.

Astonishing new technologies can integrate with the brain itself.



A language interactive lets visitors try to pronounce sounds from foreign languages, a task that grows more difficult as we become adults.

In the Brain Lounge, visitors get a look inside the brains of basketball players, UN translators, and a famous musician.

A theater includes a giant 3D brain with light-up sections.

4. YOUR EMOTIONAL BRAIN

This section explores how emotions are processed in the brain and links it to the evolution of the human brain. **An interactive kiosk** shows how neurotransmitters relay messages as a visitor decides whether or not to eat a cookie, while the **build-a-brain** interactive allows visitors to take apart the various sections of the brain.

7. YOUR 21ST-CENTURY BRAIN

The future is already here. Visitors see **electrodes that can be implanted** in brains to control seizures, **implants to help the blind see**, and **brain-computer** interfaces that are being developed to help paralyzed people control computerized devices and possibly even move again. Finally, visitors can relax on biomorphic benches in the immersive **Brain Lounge** to experience the exhibition's stunning finale: **floating projections of fMRIs** taken while superstars, including a translator, a musician, and an athlete, listen to sounds related to their craft.

An enormous projection of a face expressing different emotions greets visitors in the Emotional Brain, while neurotransmitters arc overhead between giant glowing neurons.

Lights dance across wires in a dazzling art installation illustrating growing neurons.

Computer interactives challenge visitors' sharpness, using exercises that help strengthen aging brains.

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FOR MORE INFORMATION

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The objects in this brochure represent the exhibition's content at AMNH, and may not appear at all venues.

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