

An Epic Journey Through the Morphogenesis of Values

During the previous decades, technologies have altered our relationship with the World and with others at a fast accelerating pace. If we easily perceive the resulting mutations in our daily life, we may have overlooked the primary motivations behind the change. We enter a period where the means prevail over the ends, and the technologies hide their finality. Going back to the origins of our will to change the World, we may foresee how striving to control the World with our brain may make us forget our real motivation. Beyond survival, at the origin of our actions, are the values that we may fight for: we ought to acknowledge the role they play in our life by giving them a shape and a price, hence monitoring their ever-changing hierarchy to understand the entanglement of Finance and Ethics.

Maurice Benayoun

Morphogenesis of Value (MoV) is one of a kind media art project conceived and developed by Maurice Benayoun (aka MoBen). Electroencephalography (EEG) and Blockchain technology serve as the project's platform, while artificial intelligence (AI) algorithms are their apparatus. MoBen and his collaborating artists, Tobias Klein and Nicolas Mendoza, developed the ***Value of Value (VoV)*** artistic research project in 2018. MoV is the embodiment of the most recent findings of that project. At the origin of VoV is the ***Brain Factory***, MoBen and Tobias Klein conducted in 2015, combining neuro-design and 3D printing with an emphasis on **Reification**: to "give shape to human abstractions, and convert thoughts into objects."

MoV achieves the original objective of VoV, which is to probe the relative value of human values by proposing a stock market where human values could be exchanged and monetized and conceiving the possibilities that allow these values to emerge as tangible art forms.

Through interaction and participation, the audience becomes the source of all content in the project. The viewers, dubbed "brain workers", interact directly with their brains through the EEG device. They react to the dynamic evolution of shapes produced by the Generator. The brain ecosystem assesses the capacity of the living entity to survive when confronted with keywords expressing human values. From this quasi-curatorial process emerges a form that reflects the brain workers' collective vision. Like in the context of Nature considered as an ecosystem, the shape does not result from intentional design but ***Artificial Selection*** (Human-Made Selection). The shaping of values as visual 3D abstraction is a morphogenetic process (from the Greek *morphê* "shape" and *genesis* "creation", literally "the generation of the form"). Far from analogies and allegories, brain-born abstractions become 3D abstract forms that evolve in time after the succession of the brain workers, each of them contributing to the Value "DNA of concept." Immediately registered on the Blockchain, the forms become digital assets

that can be collected, traded, 3D printed, and reified (after Karl Marx, thoughts converted into objects or commodities).

In **gallery 2**, The "**Neuro-Design stations**" enable the visitors to contribute to the production, shaping, and minting of human values.

Once the values are converted into 3D models, they are immediately registered on the Blockchain as NFT (Non-Fungible Tokens), which indicates that those values have been converted into **monetary units** and are prepared to be traded as commodities on the market. The participants who generate values as **NFT** become the owners and collectors of VoVs. They can engage in token trading in the open market. In **gallery 4**, the "**Trading Room**" demonstrates the real-time ranking of human values and allows visitors to engage in the VoV transaction themselves immediately.

In this exhibition, the **Blockchain** contributes to this experimentation as a platform for the direct trading of art and as a medium that artists seize to articulate ethical and political issues and extend art creativity. AI has become the extension of the human mind for its art practices. The core of MoV challenges the inherent notion of art: can art sublimate material objects into immaterial subjects? Moreover, reversely, can art reify autonomous subjects into tangible objects in a critical manner? As a result, VoV tokens are viewed as the "seeds of art" that can be spread and disseminated across all spheres of human activity and society.

Instead of delivering answers through the artwork, MoBen poses questions to the audience and monitors the evolution of the issue. The viewers can interfere with the gestation of the values, enrich their content and interpret their display.

This sense depicts the values and expresses statements connected with the values. From this vantage point, the viewers become the public, the artist, the curator, the collector, the critic, and the art dealer successively. Human values become the stake of a *transactional aesthetics* project, where beyond representation, they enter a process that MoBen calls "post-symbolism". Affecting the financial, ethical, and political strata of society in a performative manner, it belongs to the artist's concept of *Critical Fusion*¹.

Morphogenesis of Values makes visible the ethical fabric of society. At the venue's entrance, "**City Ads Values**" unveils the hidden messages translated into values that lay behind the colorful and appealing glittering of urban advertising.

MoBen has presented his thesis through a series of 2D crypto-calligraphic prints he made using tokens from his collection. These prints are displayed on one side of **gallery 3**. On the other side of the gallery, the "**Reader**" and the "**Interpreter**" are exploring the potential of artificial intelligence as a "second brain" in artistic articulation and intercultural exchange between humans and machines. AI "reads" the 3D shape of the VoV in an attempt to

¹ MoBen first proposed the concept of "Critical Fusion" in 2002 at the *Watch Out!* installation in Seoul.

understand the brainchild of human nature. The similarities with Chinese calligraphy generate interpretations of words and concepts that bend the original term of value in different directions, like musical harmonics. Then *The AI Interpreter* translates the sequence of values and their harmonics into images and texts that, when put together, become a converging undertaking of human/machine translation of the invisible and the unutterable.

Tobias Klein's Threedees, concrete replicas of dynamic abstractions, are the experimental product displayed in gallery 5. Meanwhile, Moben's "The Footprint of Freedom" in marble illustrates how fragile the values are. Like some dinosaurs, they may only be preserved as footprints in the mud or aestheticized as footprints in marble.

The profound impact of MoV resides in offering an ontological transformation of art generation. It reflects the evolution of the artwork as a society of agents confronting object and subject, concept and form, human values, and financial values. The keys are revealed in the concepts of *sublimation* (conversion of the world into data in MoBen's terms) and *reification* (conversion of the immaterial into an object, a commodity, a transactive item). Proposing a market for human factors (values, and in previous works, emotions, abstractions...), MoV tells us how the convertibility of the World into digital or financial units may have become the engine of human societies, which hollows the very nature of society from its substance and compromises its survival.

This exhibition was initiated in 2019. It was ultimately realized with the full backing of the Osage Art Foundation despite the many challenges encountered along the way.

Maurice Benayoun
Ann Mak

價值形態塑成的史詩式之旅

在過去的幾十年裡，技術以極快的速度改變了我們與世界和人的關係。如果我們只專注於我們的日常生活所產生的變異，我們可能忽略了變化背後的基本動機。我們正在進入一個手段勝過目的的時期，技術矇蔽了它們該達至的結果。回溯最初我們追求改變世界時，我們也許已預視到，我們以大腦來控制世界可能會使我們忘記真正努力的本意。我們奮鬥的初心，是追求生存以外的價值。我們應該承認這些價值在我們生命中的作用，給予它們一個形狀和價格，從而監測它們不斷變化的趨勢，以拆解金融和道德之間的糾葛。

— 莫奔

價值形態塑成 (MoV) 是由莫奔 (又名 MoBen) 構思和開發的媒體藝術項目，以腦電圖 (EEG) 和區塊鏈技術作為項目的平台，以人工智能 (AI) 算法作為手段。莫奔與他的合作藝術家簡鳴謙和 Nicolas Mendoza 於 2018 年開發了 **價值的價值** (VoV) 藝術研究項目，MoV 是該項目最新研究成果的體現。VoV 源於莫奔和簡鳴謙從 2015 年開始進行的研究項目 **大腦工廠**，結合了神經設計和三維打印，強調**物體化**：「給予人類的抽象化概念以形狀，並將思想轉化為物體」。

MoV 實現了 VoV 的最初目標，即通過一個讓人類價值可以交換和貨幣化的股票市場，來探索人類價值的相對價值，並構想使這些價值成為具有形體藝術品的可能性。

觀眾的參與和互動成為這個項目中所有內容的來源。借助 EEG 設備，觀眾可以直接與他們的大腦互動，觀眾繼而被稱為**大腦工人**，對計算機生成的生物體形狀及其動態演變做出反應。當生物體遇上表達人類價值觀的關鍵字時，大腦生態系統便會對其存在的角色作出評估。從這個類似策展的過程中，出現了一種反映大腦工人的集體願景。

就像大自然中的生態系統一樣，形狀不是有意設計的結果，而是**人為選擇** (Artificial Selection) 的結果。當價值被塑造為視覺上的三維抽象圖形，這便是形態塑成的過程 (Morphogenetic 來自希臘語 *morphê* 形狀和 *genesis* 創造，字面意思是「形態的產生」)。由於有不同的大腦工人的參予，數據不斷在演算，因此由大腦生成的抽象化概念成為三維抽象形態，都是每位參與者為這概念的 DNA 做出了貢獻。這些抽象形態隨即在區塊鏈上註冊，成為數字資產，可以被收藏、交易、三維打印、物化 (馬克思所謂的思想轉化為物體或商品)。

在二號展廳的「神經設計站」讓參觀者體驗，並為人類價值的生產、塑形和鑄造作出貢獻。

一旦這些價值被數字化為三維模型，它們就會在區塊鏈上同步註冊為 **NFT**（非同質化代幣或不可偽造的代幣），表明這些價值已轉換為**貨幣單位**，並準備在市場上作為商品進行交易。而參與生成 NFT 的人便成為該價值的擁有者和收藏家。他們能夠在公開市場上進行代幣交易。在四號展廳的「交易室」展示了價值的實時排名，讓參觀者有機會即時親自參與交易。

在是次展覽中，區塊鏈不僅作為直接交易藝術的平台，而且是藝術家用來表達倫理和政治等問題並擴展藝術創造的媒介，而人工智能是人類思想對藝術實踐的延伸。MoV 的核心是挑戰藝術的固有觀念：藝術能否從物質性物體轉變為非物質主體？而反過來問，藝術能否藉物化的概念，以批判的方式挑戰從自主的主體物轉化為有形的物體？因此，VoV 代幣被視為「藝術的種子」，可以在人類活動和社會的各個領域傳播和擴散。

莫奔沒有通過藝術作品提供答案，而是向觀眾提出問題並檢視問題的演變。觀眾可以干預價值的塑成過程，豐富其內容並解讀其展示結果。

當中的意義在於描繪了價值並表達了與價值相關的陳述。從積極的角度來看，觀眾先後成為公眾、藝術家、策展人、收藏家、評論家和藝術商人。人類價值成為交易美學項目的關鍵，在此超越表現形式，他們進入了莫奔稱之為「後象徵主義」的過程。它以表述行為的方式影響著社會的金融、倫理和政治階層，屬於**批判性融合**²的藝術概念。

價值形態塑成也讓社會的道德結構顯露出來。在展覽的入口處，「城市廣告價值」揭示了價值所隱藏的信息，這些信息被詮譯成文字，隱藏在城市廣告中閃爍璀璨的色彩和吸引力後面。

莫奔用他個人收藏的代幣製作了一組二維加密書法作品以闡述他的論點。這組作品展示在三號展廳的一面牆上。在畫廊的另一側，「讀者」與「解讀者」正在探索人工智能作為「第二大腦」，即人與機器之間的藝術表達和跨文化交流的潛力。

人工智能讀取 VoV 的三維形狀，試圖理解人類本性的想法。當中與中國書法的相似之處是對文字產生和概念的解釋，就像音樂的和音一樣，將原來的價值術語扭轉往不同的方向。然後，**人工智能解讀器**將價值序列和它們的諧波翻譯成圖像和文本，它們放在一起，成為人/機器的無形和不可言說融合和詮譯。

² 莫奔於 2002 年在首爾的 *Watch Out!* 裝置作品中首次提出「批判性融合」的概念。

最後，在**五號展廳**的印記是實驗成果，展示了動感抽象化概念如何被具體化，形成名為「**Threedees**」的有形物體，是把抽象的動態轉化為物體的藝術作品，屬於簡鳴謙的創作。或像**自由足跡**這樣的大理石雕塑，告訴我們價值是多麼脆弱，和一些恐龍一樣，它們可能只是留在泥土上的腳印，或是被美化為大理石上的足跡。

MoV 的深層意義在於它提出了藝術生成過程中的本體轉移。它反映藝術品以中介的身份，進行物象與主體、概念與形式、人類價值與金融價值演變進化的詮釋。關鍵在於**昇華**（將世界轉化為莫奔術語中的數據）和**物化**（將非物質轉化為對象、商品、可交易物品）。MoV 告訴我們，世界對數字或金融單位的可轉換性可能已經成為人類社會的引擎，這使社會的本質與它的實質空洞化，並危及它的生存。

這次展覽於 2019 年發起，儘管一路上遇到了諸多挑戰，在奧沙藝術基金會的鼎力支持下最終得以實現。

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