



台北數位藝術中心  
DIGITAL ART CENTER, TAIPEI

# 移動森林

MOBILE FOREST

6/30-8/05

策展人 Curator / 謝慧青 Hui-Ching Hsieh

藝術家 Artists / Philip Beesley、Eelco Brand、Dimension+、  
黃致傑 Scottie Chih-Chieh Huang、黃贊倫 Zan-Lun Huang、  
郭慧禪 Hui-Chan Kuo、曾偉豪 Wei-Hao Tseng

## 機械與植物的融合演化

### The Combined Evolution of Machines and Plant Life

隨著科技時代的演進，自然與人工之間再也不像過去是一種截然不同的對立，兩者之間的界線越來越模糊，混種的賽伯格(Cyborg) 運應而生，我們正面臨著機械與自然共同演化的新未來。本展「機動·森林」中，藝術家以互動機械裝置、以及數位影像作品，呈現機械與植物間跨界生命形態，以及物種之間的融合演化。藝術家們以機械、感應元件、電腦互動程式、動畫等媒材，創造出機械的植物生命，以及虛擬幻境中的森林生機。

#### 自然與人工之間是演化與生成的變動

人工所創造的東西與我們正在變成的東西一起進化，也就是說，人、生物、機械、資訊在時間的潮流中共同演化。江世敦(John Johnston)《人工生命的誘惑》中，為「人工生命」(machinic life)下了一個定義：是一種原初的生命形式，在人造的環境中藉由機械式的互動表現。」江世敦也提到，在二次戰後，出現了兩種新型態的機器，一種是電腦，另一種就是擁有擬似生命型態，可以表現出動作的反應式機械(liminal machine)，與自然形式不同卻擁有類似有機生命體的「人工生命」。江世敦認為，在巨觀的物理自然世界生物界與近來發展出的人工生命體之間，並非是互相對立的。雖然在科技的領域中利用了對自然模擬的手法，但是其結果並不是自然與人工的對立，而是一種演化與生成(becoming)的變動，相互依賴、共

鳴，產生出一種與不同於兩者的新物種：「機械物種」(machinic phylum)。

在將生物與機械演化整合的方向，唐納·哈洛薇(Donna Haraway)提出整合各個物種間的演化論述，而她更強調的是物種間彼此之間密切關連，以及共同演化的關係。哈洛薇在二〇〇三年提出《伴侶物種宣言：狗、人與意義重大的他性》(The Companion Species Manifesto)一書中，強調了人與動物共同演化的密切關係，將人與狗的關係想作是一種「共同進化」(co-evolution)的範本。而在此宣言中的伴侶物種，所包括的不僅僅是動物，而是所有在演化中所產生的物種，也包括了她在〈cyborg宣言〉中的cyborg。「我已經開始把cyborg看做更大的奇異的伴侶物種家族裡的小字輩。」她說。海爾斯(Hayles, N. Katherine)在《我的母親是一台電腦》中曾作以下表述：「我們之所為，與我們之所是，是一起進化的」。她認為，「人類、動物以及智能機器現在就會比在其文化的、社會的、生物的以及技術的進化的任何時候都更緊密地聯繫在一起。」也就是在這樣的進化的螺旋上升關係之中，我們所創造的東西與我們業已變成的東西一起進化。人、生物、機械的在時間的潮流中共同演化。

#### 機械與數位的仿生植物

生物所涵蓋的包括植物與動物，江世敦



# 曾偉豪

## WEI-HAO TSENG



### 語林 In Talking Forest

互動裝置，尺寸視空間而定，2012。  
Interactive Installation, Dimension Variable, 2012.

曾偉豪的創作都著重探討「聲音 / 空間 / 身體」的交互作用。經由身體作為介質所產生的互動雜訊，透過指尖與導電油墨的接觸，創造一種視覺、觸覺與聽覺結合的想像。

這件作品想表達一種身處聲音風景的想像。在環境中，每個對話、每個聲音都有其獨特的頻率，在人與人對話或人與自然環境互動的同時也被這些獨特的頻率穿透，藝術家想創造一種可以讓身體接收穿越的視聽感受。作品中的黑色區塊是藝術家從一些對話和自然環境錄音擷取下來的頻率圖，當這些圖樣翻轉成垂直時，非常像樹的樣子，並透過這樣的聯想想像對話成為一座森林，雖看不見卻身處其中。希望透過這樣的視覺形式和身體接觸的互動聲音，讓觀眾感受到被聲音穿透的感覺，就像進入一個由話語聲音所構成的森林風景。

This work uses conductive ink and pencil as intermediaries. The interactive white noise created

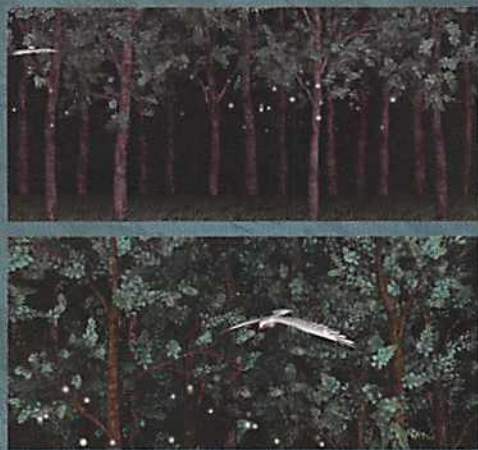
through the introduction of people and the contact of fingertips on conductive ink creates a combination of visual, tactile and aural experience.

With this work Tseng seek to express my feelings at finding myself in a sound landscape. In the environment in which we live, each conversation or sound has its own unique frequency. However, as people converse with each other or interact with the natural environment they are also penetrated by these unique frequencies. As such, Tseng wanted to create a visual and aural sensation that allows people to physically view those frequencies. The black areas in the work represent a frequency chart derived from recorded conversations and sounds from nature. When these are placed vertically they look very much like trees. It is through this connection that viewer would be able to imagine conversations as a forest, something that although invisible to the human eye surrounds all of us. Tseng utilize this visual form and the interactive sound created from contact with people in a way that allows us to feel first hand the sensation of being penetrated by sound. In this way, viewers are transported into a forest landscape made from words and sound.



# 郭慧禪

## HUI-CHAN KUO



### 光點II Spot II

互動影像(動畫、單槍投影、紅外線感應器)，尺寸視空間而定，2012。互動程式設計：李家祥  
Interactive Installation, Dimension Variable, 2012. Programmer: Chia-Hsiang Lee

以行道樹與森林意象呈現的互動投影，綠意盎然的步道和幻想的結合，進入空間後猶如在城市森林看見螢火蟲的光點，輕鬆漫步於錯置的場域中，體驗室內的森林空間。發現位處於城市中的光點，享受遠離都市塵囂的寧靜，回憶童年與旅遊中的自然景致，走進夜晚陌生的空間，些微恐懼夾雜好奇情緒，帶有未知的神祕與想像，如同夢境中黑暗而無聲的森林，彷彿將要迷失在其間，靠近後顯現輕盈散落的點點螢光，若有似無的跟隨，如同呼吸般起伏。

無意間發現的光點森林，將繁忙卸盡後的怡然自得，隨著微風擺動，散落的綠葉迎接訪客的到來，變換微妙的組合，回溯記憶片段中生命美好的光點，在人工自然的畫面中感受現實與虛幻空間，延伸想像與環境的互動連結。

This interactive projection is made up of a representation of the artificial fantasy trees and a forest. The combination of lush green walkway and fantasy

scene means that once visitors enter the space they find themselves in an urban jungle looking at fireflies, strolling in a displaced scene and enjoying an indoor forest. Discovering points of light in the city, enjoying solitude far from the clamor of the city, remembering scenes of nature from childhood and past trips, viewers enter the space of an unfamiliar night. The combination of fear and curiosity such scenes engender bring with them a certain mystery and imagination of the unknown, in much the same way as a dark and silent forest encountered in a dream. It is almost as if one is on the verge of getting lost, but scattered flecks of light appear, following, rising and falling, like the motion of breathing.

In this accidentally discovered forest of lights, the scattered leaves blown by a breeze welcome customers after a hard day at work. They create an exquisite combination that can be traced back to beautiful moments in life, as viewers experience the real and imaginary space in a picture of man-made nature, extending the interactive connection between imagination and the environment.

# 黃贊倫

## ZAN-LUN HUANG



### 含羞花 FT01S

機械互動裝置。

70 x 70 x 50 cm (共三件), 2012。

Interactive Installation,

Each 70 x 70 x 50 cm, 2012.

FT01S以仿生的呈現方式，對真實生命體的植物，做一種無機而仿生命機能與結構的再造。在高度科技發展的當今，AI的發展、DNA的解碼，已不是科幻電影裡的情節。而當這一切就如上帝之手，被一一造出的同時，也一再的挑戰這一整個社會契約。FT01S將以植物最為直接的生物機能的型態，做為探討如此再造物與仿生的認同感，在存有與差異裡，物體又有何可能？

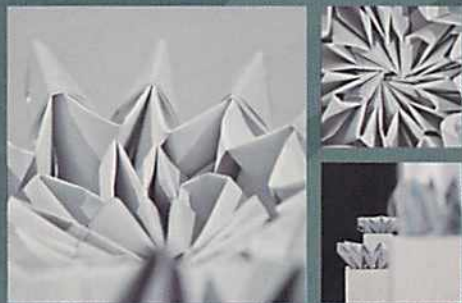
FT01S was biomimetic to a real life plant, recreate the form of a plant, inorganic but alive. Due to the highly development of science and technology, Artificial Intelligence exploitation and DNA decoding were no longer just a science fiction plot but a real life scene. When human beings plays God's role, creating something that even they could not comprehend, everything gone mad and wild. FT01S was built up to be a plant, yet inanimate and imperishable; confront us the technology oriented with the thing in itself.





Artist

## DIMENSION+



### 共生交響 Mutual Symphony

機械互動裝置(紙、機械、感應器), 2011-2012。  
Interactive Installation, 2011-2012.

以共生觀念出發，單一的擬態元素與其他的單位共同交織出機械與光影的巨大生命體。本作品亦是Dimension+團隊之Foldme企劃的實驗成果之一，也是團隊於香港K11展覽「動·態·生」作品之一。Foldme企劃以混合並嘗試結合紙和電子及機械兩種極端媒體作為實驗之基本。《共生交響》延伸foldme的實驗，以紙摺疊出植物的形態，結合機械元素，讓它和環境及觀賞者產生觸感互動，以有機之生命動態呼應觀賞者之互動。

With the concept of symbiosis, single elements will be used to interweave with other units to construct a living body of machinery, light and shadow. This work is one of the art work exhibits at "Dynamic Livings," K11 Hong Kong, and also the result of the foldme experiment project by Dimension+.

Artist

## 黃致傑

### CHIH-CHIEH HUANG

光線會誘導植物的生長點和葉柄分泌生長素，流向照光組織的背光面，造成植物的向光性特質。隨著光源回應以微小形態變化的過程，更展現了一種探究光明、追求生命的美好景緻。「人造向光」作品希望藉由植物向光性機制的概念，重新開在日趨高科技的智慧生活中，可能逐漸喪失的感性溫度。《人造向光》讓參與者體驗一種具生物邏輯(biologic)的互動情覺：藉由與光影流動的對話，開啟一株鬚狀機動物件的生長行為，重構環境氣氛與互動裝置之間的美好情境。

Light induces growing points in plants and the secretion of growth hormones by leafstalks, which flow behind the tissue in the light creating the phototropic nature of plants. As the light source responds with a process of micro-structural changes,

### 人造向光 Artificial Phototropism

互動裝置(形狀記憶合金線、壓克力、紅外線感測器、光敏電阻、燈)。  
Interactive Installation, 75cm\*75cm\*120cm, 2012.



It showcases a stunning scene of light exploration and the pursuit of life. Artificial Phototropism allows those who participate to experience first-hand biologic interaction. It is through this dialogue of flowing light and shade that the growth of a beard-like mechanical component is initiated, reconstructing a scenario of beauty between the environmental atmosphere and interactive installation.



## EELCO BRAND

1) **DB.movi**

Digital 3D Animation, continuous, 2012.

2) **T.movi**

Digital 3D Animation, continuous, 2011.

3) **C.movi**

Digital 3D Animation, continuous, 2011.

4) **P.movi**

Digital 3D Animation, continuous, 2010.

5) **M.movi**

Digital 3D Animation, continuous, 2010.

在西方繪畫的傳統中，風景畫以及風俗畫的場景佔有主要的地位，Brand的作品可以說是屬於這種圖畫式的傳統，而也超越了傳統形式的類型。看起來十分寫實的風景畫，卻結合了抽象的元素、詭奇性、以及幽默感，這些都經常可見於Brand的作品中。風景畫挑起了觀者的一種似曾相識感——是一種完全由視覺建構的刻板印象，但卻有著強烈的表現力量。然而，任何對於風景的視覺化形式，即便是那些我們以心靈之眼所想像的風景，難道不都是被建構出來的嗎？Brand的作品在在鼓勵我們去思考有關人類對於真實之感知的問題。

在Brand的影像中，觀者毫不費力地就可以改變他們的視角：像蟲子一般蠕動著、在水的表面上浮動。許許多多蘑菇變成漂浮的水母狀態。這些短片的慢動作、無限重複的迴圈，幾近療愈性地播放著，且與任何我們對於動態影片的期待毫不相符。

The oeuvre of Eelco Brand belongs to a pictorial tradition in which landscape and genre scenes play a leading role, but goes beyond the traditional forms of this genre. Realistically looking landscapes are combined with abstract components, absurdity and humour are constantly accompanying the artworks of Eelco Brand. The landscapes seem familiar to us, evoking the impression of having seen them before - stereotypes, completely virtually constructed, but of a strong expressive power. But is not any form of visualisation of landscapes constructed, even those we see in our mind's eye when we imagine a landscape? The artworks of Eelco Brand encourages us to think about our perception of reality.

In Brand's films the viewer is effortlessly changing perspectives: crawling like bugs, moving below and above a water surface. Mushrooms turn into floating jellyfish-like forms. The slow movements as well as the endlessly repeating loop of the short films are nearly meditative and do not meet in any respect with the expectation that we have of animated films.



# PHILIP BEESLEY

## Hylozoic Series

影片 · 7分鐘 · 2012  
Video, 7 mins, 2012.

The Hylozoic Series呈現了一個反應空間的新世代觀點。加拿大籍藝術家兼建築師Philip Beesley創造出具有沈浸感的環境，邀請觀者探究有關建築的重要問題：未來的建築將會變成什麼樣子？未來的建築物是否將會開始「認識」並且「關心」我們？它們是否會—以某種相當原始的方式—變成具有生命的活物？

感應到觀眾的動作，作品開始產生細微的振動、發出螢光，並且透過包覆的層疊空間傳出低吟的聲響。Hylozoic的環境可以感知觀者的行為，並且與觀者互動，此外，也涵蓋著彷彿能進行基本新陳代謝的化學系統，處理著環境中的物質並與之交換。成千上萬個客製化的元件散布在四散漂浮而半透明的雲層中。結構的中樞是由壓克力以及矽膠製成的網狀物，細緻而透明，形成圓頂般的蓬罩和一叢叢籃狀的柱子；作品的表面覆蓋著大量的羽毛狀的濾網串，串連著玻璃微流道。在大量的脈管中，進行著基本的化學新陳代謝。在系統中的「原型細胞」呈現出自我繁衍成長的早期階段，進行著能夠幫助周遭空間持續更新的化學交換。此計畫之名來自於古希臘「萬物有靈論」(hylozoism)，一種相信萬物皆有生命的古老信仰。

The Hylozoic Series expresses a vision for a new generation of responsive spaces. Canadian artist and architect Philip Beesley's immersive environments invite viewers to raise fundamental questions about how architecture might behave in the future. Might future buildings begin to 'know' and 'care' about us? Might



they start, in very primitive ways, to become alive?

Responding to the movement of visitors, ripples of vibration, glowing light, and whispering sound move throughout the immersive layers of these spaces. The Hylozoic environments can sense and interact with viewers, and contain chemical systems that act like a primitive metabolism, processing and exchanging material with the environment. Floating overhead, hundreds of thousands of custom-made components spread out into diffuse, translucent clouds. The structural cores are delicate transparent meshworks of acrylic and silicone, making vaulted canopies and groves of basket-like columns. These are clothed with dense clusters of feathered filter clusters and interconnected chains of glass vesicles. A primitive chemical metabolism is housed within the massed vessels. 'Protocells' within this system show the early stages of self-generating growth, exchanging chemicals that can help to renew surrounding spaces. These projects are guided by the work's ancient Greek namesake 'hylozoism', or the belief that all matter has life.



所提出的「機械物種」所指涉的不僅是機械與動物之間的演化生成，也包括了機械與植物。本展「機動·森林」藉由藝術家的作品，展現機械、資訊與植物間的新物種，以及未來演化的趨勢。

黃贊倫的《FT01S》感應到觀眾的靠近後，三朵美麗的白色金屬花朵將會綻放轉動；同時，也會觸發藝術家為機械花朵所裝設的收音機頻道，讓觀眾與藝術家所創造的機械生命相互對話。香港與台灣藝術共同組成的創作團體Dimension+，這次參展的作品《共生交響》，則是用白紙摺疊出一朵朵的紙花，觀眾用手觸碰花瓣之後，感應傳導到花朵下方的機械元件，讓層層疊疊的花瓣緩緩綻放開來。黃致傑的《人造向光》，藉由植物向光性機制的概念，重構一株鬚狀機動物件的生長行為。

Philip Beesley是國際知名的數位建築師，近年來，他以一系列的Hylozoic互動機械裝置作品，打造出令人驚嘆的機械森林。他也特別為本展製作了環場投影裝置，讓觀眾有身歷其境的感受。曾偉豪的《語林》，被藝術家打造為就像是兩株會吟唱的樹木，民眾觸摸由導電油墨繪製而成的樹林，作品會發出如低吟般的聲響，這是一個結合了視覺、觸覺與聽覺的森林風景。

郭慧禪的《光點II》，是藝術家所打造的數位森林景象，當觀眾接近時，會發現如螢火蟲的光點迎面而來，以數位影像重現藝術家心中的森林空間。Eelco Brand的作品中的樹木與植物，如動物或昆蟲般蠕動、蔓延；數位動畫的畫面中，流露出超現實的幽默感。

「機動·森林」主要希望能夠呈現機械

以及植物之間的跨界生命形態。「機械物種」不僅是機械或人生智能的動物仿生，同時也是也機械與植物間的融合演化。

In "Mobile Forest" (機動·森林) artists utilize interactive mechanical installations and digital image works to highlight life-forms that transcend the boundary between machines and plants, and the combined evolution of species. The artists utilize machines, sensor components, interactive computer programs and animation to create mechanical plant life and a vibrant forest in a virtual reality environment. "Mobile Forest" was curated by Hui-Ching Hsieh who invited seven outstanding artists and art groups from Taiwan and overseas to participate, including Philip Beesley, Eelco Brand, Dimension+, Chih-Chieh Huang, Zan-Lun Huang, Hui-Chan Kuo and Wei-Hau Tseng.

John Johnston thinks what existed between artificial life and natural life (in the world of macro-physics nature) is not a polarized difference. Though employing the technological approach to simulate the nature, its result is, instead of a conflict between the natural and artificial, a dynamic alteration which exemplifies a harmonious symbiosis, and through which a new species different from both: machinic phylum, is thus produced.

Man-made things and the thing we are becoming ourselves are co-evolving, which is to say that people, plant and animal life, and information continue to evolve together in the tides of time. Machinic Phylum is not just a machine, or animal bionics with human intelligence, it is also the combined evolution of machines and plant life.



## Activities

## 系列活動

開幕茶會 Opening /  
2012/6/30 (Sat) 14:30

座談會 Artist Forum /  
機械與生物的融合演化 6/30 (Sat) 15:30

主持人 謝慧青 (策展人)

與談學者 曾鈺涓 (世新大學公共關係暨廣告學系助理教授)

與談藝術家 Eelco Brand、Dimension+、黃致傑、黃贊倫、郭慧禪、曾偉豪

專家導覽 Guided Tour/  
7/7 (Sat) 14:30

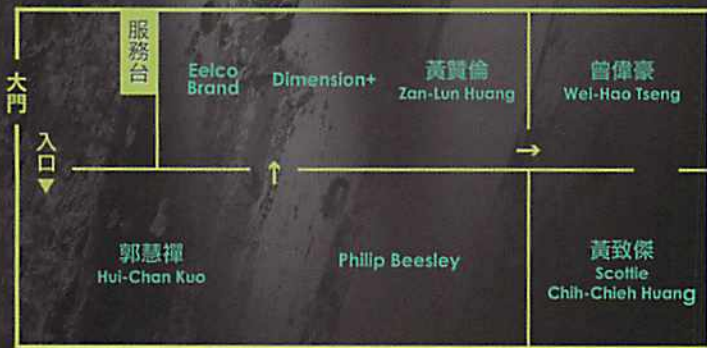
郭慧禪 (藝術家)

7/21 (Sat) 14:30

謝慧青 (策展人)

## Floor Map

## 作品配置圖



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週二至週日10:00-18:00 (週一休館) 免費參觀 / Tue to Sun (close on Mon) 10:00-18:00 Free Entry / 02-7736-0708

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