

虛幻生命：混種、轉殖與創生  
FICTIONAL LIFE : HYBRIDITY, TRANSGENETICS, INNOVATION

FICTIONAL LIFE :  
HYBRIDITY  
TRANSGENETICS  
INNOVATION



虛幻生命：  
混種、轉殖與創生



臺灣當代文化實驗場  
Taiwan Contemporary Culture Lab

虛幻生命：  
混種、轉殖與創生

Fictional Life:  
Hybridity, Transgenetics, Innovation

臺灣當代文化實驗場  
Taiwan Contemporary Culture Lab  
2021.03.13-05.23

法蘭西斯·福山(Francis Fukuyama)在二十世紀末曾憂心的指出，再過兩個世代，生物科技將賦予我們工具，讓我們可以完成以前社會工程學專家無法完成的事；屆時，當前人類的樣態將被迫廢除，人類歷史也將永遠終結。從那時起，文明將會開始新的歷史——「人」以外的歷史。隨著數位時代的全面到來，整體且普遍的人工智能化而引發了一系列的社會文化、地緣政治、生存環境、生命倫理等人類生活世界的改變，而大規模「數位化」世界圖景的景緻既是歷史性的，也是增補性的當代生存樣態。與此同時，生物藝術的發展與生物科技與人類史的觀念息息相關；甚至，當代生物科技已經造成了文化效果，激起整個社會對於傳統生物科技的意識，尤其是從複製羊試驗的成功、基改食物的出現，以及人工器官的發明，讓諸多充滿爭議的議題在生物科技產業浮上檯面。

「生物科技藝術」此一詞彙已經被使用在無數脈絡裡，它意指有關於藝術與所有生物間交互作用的藝術創作計畫，如交互作用意指著處理生物議題的傳統藝術形式。一般而言，生物科技藝術意指的是將生物當作創作媒材的藝術創作實踐，其對生物科技論述必有所貢獻。生物科技藝術創造脈絡，並在脈絡裡激起諸多極具爭議性的議題；生物科技藝術也可以增進人們對於生物科技的倫理與政治議題的意識；生物科技藝術更在激發對生物科技的批判態度上也扮演著極為重要的角色。最重要的是，生物科技藝術憑藉著「藝術—科學—科技」的共同參與，打破各文化之間壁壘分明的局勢。

生物科技藝術無疑是當代科技藝術中一個新的且最為顯著的創作方向，它主要在於模塑、揀選並思考生命的過程。與此之中，生物科技藝術不僅使用了生命的特質及其素材，改變了有機體的原形表現，為生命創造出新的特徵，生物科技藝術也關注於演化策略，希冀能提供另類於主流觀點或獨特性的概念，它有可能將內在的或相互分離的生物副產品誘導出意料之外的形式與功能。

有鑒於當前生物創新科技與科技藝術實踐的高度融合，本展覽「虛幻生命：混種、轉殖與創生」(Fictional Life: Hybridity, Transgenetics, Innovation) 試圖透過多元面向去描繪生態體系之間相互的「混種」(hybridity)、生物基因實驗中的「轉殖」(transgenetics)，以及數位科技應用的「創生」(innovation) 三個主要面向，如何跨界相互共生 (mutualistic symbiosis)。此外，此展亦期盼透過連結國內外學界與民間相關生物藝術實驗室，開展當前臺灣文化實驗中的生物科技藝術現況。更重要的是，奠基於上述命題，透過作品辯證從藝術實踐、創新科技、生物技術之複合體的實踐策略與從跨物種系的複雜性，討論人類與其他物種的共生性；從對生物跨物種體系的實驗，剖析基因轉殖的可能性；從創新科技的應用與試驗，了解多元生物的生命行為，並透過此三個面向去建構對生物科技藝術生態系的想像。

At the end of the 20th century, Francis FUKUYAMA has worriedly pointed out that biotechnology would soon provide us with instruments in two generations to complete tasks that social engineers could never accomplish before. By then, the present form of human life would become obsolete and the history of the humankind would come to an end. When this moment comes, the civilization would begin a new history, one that moves beyond "humanity." Along with the arrival of the digital era comes a series of changes related to social culture, geopolitics, environment and life-ethics, triggered by comprehensive and common artificial intelligence in the human world. The vastly "digitized" Weltbild (world image) constitutes the contemporary form of survival that is as historical as it is supplementary. In the meantime, the development of bio art becomes closely intertwined with biotechnology and the notion of the Anthropocene. In addition, contemporary biotechnologies have engendered a cultural effect that raises the entire society's awareness to traditional biotechnology, in particular the success of cloning sheep, the emergence of genetically engineered food and the invention of artificial organs, bringing our attention to various controversial topics in the biotechnology industry.

The term "biotech art" has been used in many contexts nowadays. It refers to art projects featuring the interaction between art and all living organisms, denoting traditional art forms that engage in biological issues. Generally speaking, biotech art means to utilize living organisms as a creative medium for art practice, which for sure has played a part in the theorizing discourses of biotechnology. Biotech art creates a context that allows many controversial issues to be brought up. It can also enhance people's awareness about the ethics of and political issues related to biotechnology. It even plays a crucial role of criticizing biotechnology. More importantly, through the collective participation of "art—science—technology," biotech art is breaking down barriers that used to sharply divide different cultures.

Biotech art is undoubtedly a new and the most notable creative direction in contemporary technology art. It concentrates on the processes of shaping, manipulating and thinking about life. During this process, biotech art not only employs characteristic and materials of living organisms, changing the living organisms or the original species to generate new features, but also centers on evolutionary strategies in hope to introduce alternative viewpoints or unique concepts and produce unexpected forms and functions of byproducts previously within or separated from the organisms.

In light of the extensive integration of innovative biotechnologies and the practice of technology art today, *Fictional Life: Hybridity, Transgenetics, Innovation* attempts to delineate the "hybridity" between different ecosystems, the "transgenetics" in biogenic experiments, the "innovation" of digital technology and its application, and the mutualistic symbiosis of the three primary aspects. Furthermore, the exhibition aims to create connections with domestic and international academic circles as well as private bio art labs to explore the current situation of biotech art in Taiwan's cultural experiment. More importantly, based on the aforesaid theme and through the dialectics of the featured artworks, the exhibition intends to discuss the symbiosis between the human race and other species through the strategies of the chimeric practice of artistic creation, innovative technologies and biotechnologies as well as interspecies hybridity, to analyze the possibility of transgenetics based on interspecies bio-experiments, and to understand the life behaviors of diverse species via the application and trials of innovative technologies. Through the exploration of these three aspects, the exhibition will construct the imagination of biotech art and its ecosystem.

## 策展人簡介 About the Curator

### 邱誌勇

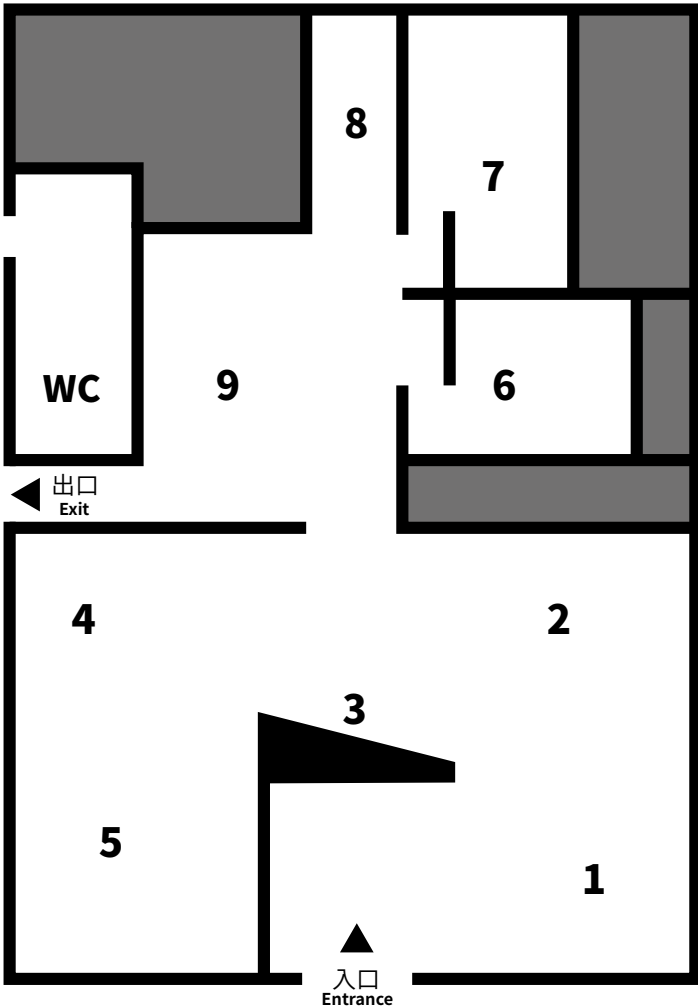
國立清華大學藝術中心主任，同時為策展人與藝評家，畢業於美國俄亥俄大學跨科際藝術系博士，學術專長為數位美學、科技文化研究與當代藝術評論。曾獲多年臺灣科技部專題研究計劃、策劃《Fading Digital Memories》、《後·技·藝：科技部專題研究計畫畫成展》、《絕對·凝視：柯錫杰玖齡影像藝術展》、《後數位人類紀——2019 國際科技藝術展》、《故事跨視界展》、《2015-2016 年臺灣科技藝術節——潮》、《2014 科技藝術展——奇幻視界》、《第八屆臺北數位藝術節——超神經》、《第七屆臺北數位藝術節——第二自然》、《顯·動·感：臺灣新媒體藝術新銳展》等展。著有《關鍵論述與在地實踐：在地化脈絡化下的新媒體藝術》一書。

### Chih-Yung Aaron CHIU

Professor Chih-Yung Aaron CHIU is now a full professor in the Interdisciplinary Program of Technology and Art in College of Arts, and the Director of Arts Center at National Tsing Hua University, as well as a curator and art critic. Prof. CHIU is also in the board of trustees of Digital Art Foundation Taipei. He received his PhD from School of Interdisciplinary Arts at Ohio University in USA, with double major in visual arts (painting, sculpture and architecture) and film studies (film aesthetics, theories and criticism), as well as a minor in aesthetics (phenomenology). His specialties are in digital aesthetics, techno-culture studies and contemporary art criticism. In the past few years, Prof. CHIU has also participated in many curatorial works including *Fading Digital Memories*, *Pristine Poetics: KO Si-Chi's 90th Year of Photographic Art, Post-Digital Anthropocene, IP EXPO Exhibition, 2015-16 Taiwan Digital Art Festival – Trend, the 7th and 8th Taipei Digital Art Festivals, the 4th Digital Performing Art Festival*, and also many international exhibitions and festivals worldwide including Hong Kong, Boston and Madrid. Prof. CHIU is also a prolific writer. His articles titled "On the Embodied Aesthetics of Digital Arts" (2007) and "Inter/face: A Reconsideration of Myth of Transparency" (2008) have been nominated by Digital Art Criticism Awards Taipei. His publication titled "Significant Discourse and Local Practice: New Media Art in Taiwan's Context" (2012) has become one of the most important texts in New Media Art in Taiwan's academia.

## 一樓展區 1F

- |          |   |      |
|----------|---|------|
| <b>1</b> | <b>《大衛》-黃贊倫</b><br><i>David-HUANG Zan-Lun</i>                                       | P.08 |
| <b>2</b> | <b>《超神奇縮小人》-阿恩·亨德里克斯</b><br><i>The Incredible Shrinking Man-Arne HENDRIKS</i>       | P.10 |
| <b>3</b> | <b>《潛在的圓形草案—燈箱》-保羅·凡諾斯</b><br><i>Latent Figure Protocol lightboxes-Paul VANOUSE</i> | P.12 |
| <b>4</b> | <b>《安妮》-黃贊倫</b><br><i>Annie-HUANG Zan-Lun</i>                                       | P.08 |
| <b>5</b> | <b>《流動》-動態自造實驗室</b><br><i>Circle-FabLab Dynamic</i>                                 | P.16 |
| <b>6</b> | <b>《改造樂園(貓)》-另類農場</b><br><i>Modified Paradise (Cat)-Another Farm</i>                | P.18 |
| <b>7</b> | <b>《生物訊號 模控》-Y2K</b><br><i>Biosignal_Cybernation-Y2K</i>                            | P.20 |
| <b>8</b> | <b>《蘿莉塔》-黃贊倫</b><br><i>Lolita-HUANG Zan-Lun</i>                                     | P.08 |
| <b>9</b> | <b>《血基質》-西西莉亞·楊森</b><br><i>Haem-Cecilia JONSSON</i>                                 | P.22 |



**注意事項:**  
黃贊倫《安妮》、西西莉亞·楊森《血基質》作品部分涉及裸露或血腥畫面，建議六歲以上十二歲未滿之兒童由父母、師長或成年親友陪伴輔導觀賞。

**Note:**  
*Annie* by HUANG Zan-Lun and *Haem* by Cecilia JONSSON involve elements of nudity and bloody images. Viewers at the age of 6-12 require accompanying parent or adult guidance.

## 《大衛》 David

玻璃纖維、機件、羊角、仿皮革  
FRP, machine elements, goat horn, artificial fur



2013

透過特製一巨型貨櫃運輸用木箱呈現仿生「羊角（潘神）」雕塑《大衛》，受制於木箱空間中的《大衛》，始終維持著藝術家一貫冷感，看來略帶偏愁的機械互動裝置手法，並加入了不經意、神經質、反射性地撞牆行為，以拋出隱匿於數位與科技背後，潛在人性的欲望窠臼。

This statue of *David*, a bionic version of the Greek mythological god, Pan, is presented inside a custom-built wooden crate that is used in ultra-large freight containers. *David*, who is restricted inside the wooden crate, maintains a sense of aloofness that the artist is known for. The mechanical interactive installation appears slightly melancholic, and suggested by the unintentional, neurotic, and reflexive wall-banging behavior is the dominance of desire in human nature that is hidden behind digitalism and technology.



《大衛》 David, 2013

## 《安妮》 Annie

玻璃纖維、機件、鹿角、仿皮革  
FRP, machine elements, deer antlers, artificial fur



2013

常用於救生練習中充當真人的《安妮》，頭上頂著美麗的鹿角與龐克式的馬鬃，腹部貼著龜板，創作靈感來自中藥製劑「龜鹿二仙膠」，據說有強筋健骨、補氣、生精髓……等作用，她被放置於日式榻榻米上，卻如珍稀文物般供人欣賞，更戴著葉克膜生命維持器，看似活著而又接近一種死亡狀態，同時出現了精神的昇華和慾望的騷動。

*Annie* is a common human simulator used in first aid training, and here she is seen with a beautiful set of antlers, a mane in punk fashion, and tortoise shells pasted on her torso, with inspiration derived from a traditional Chinese medicine containing tortoise shell and deer antler that is said to have beneficial effects for one's bones, energy, and overall internal essence. Placed on a Japanese-style tatami mat, she appears to be on display like a rare artifact. Wearing an extracorporeal membrane oxygenation (ECMO) life support mask, she seems alive but is close to being dead; at the same, a sense of spiritual transcendence and a commotion of desire are also simultaneously noted.



《安妮》 Annie, 2013

## 《蘿莉塔》 Lolita

玻璃纖維、機件、仿皮革、古典沙發、金屬  
FRP, machine elements, artificial fur, vintage sofa, metal



2015

《蘿莉塔》寧靜地沈睡在沙發之上，置身於華麗的場域。意味著一個新科技世代關切的生命議題油然而生，也述說著人工與自然間界線的模糊化。透過混種生物議題的作品，持續地叩問著當代科技文明與媒體文化如何改變人類的認知，思考人類自身與人造生物間的共生混雜關係，並藉此去除優劣善惡之別，使混種生物的議題在神話與信仰的倫理辯證間，另闢出一個新的思考模式。

*Lolita* is peacefully asleep on a sofa and appears to be surrounded by flamboyant splendor. The work prompts issues on life that the new technology generation are concerned about, and what is also expressed is the blurring of the line between being artificial and natural. Through artworks that deal with the theme of hybrid creatures, how human cognition is altered by contemporary technology and media culture is persistently questioned. The symbiotic and complex relationship between humans and artificial creatures are examined, and by eliminating the difference between good and bad, a new way to think about the hybrid creature is proposed, which strays away from ethical dialectics that focus on mythology and belief.

## 黃賢倫 HUANG Zan-Lun

1979 年出生於臺灣宜蘭，現工作生活於宜蘭與臺北。國立臺灣藝術大學美術學系學士、國立臺北藝術大學美術創作碩士。曾於臺北當代藝術館、關渡美術館、臺北國際藝術村等舉行多次個展，並獲邀參與如德國維特拉設計博物館五年國際巡迴展、義大利阿索洛國際藝術影展等國際大展。創作聚焦於透過生物與機械合體／混種的議題，展開自我認知與外在環境的多重辯證。

Born in Yilan, Taiwan in 1979. HUANG now lives and works in Yilan and Taipei. HUANG holds a BFA and an MFA from Taipei National University of the Arts in the field of fine arts. HUANG has held solo exhibitions in MOCA Taipei, Kuandu Museum of Fine Arts, Taipei Artist Village. And his works have been shown in a five-year international touring exhibition organized by Vitra Design Museum in Germany as well as in Asolo Art Film Festival in Italy. HUANG's works focus on the mixture and hybrid of biology and machine, which unfold a multilayered dialectic discourse between human self-awareness and the external environment.

## 《超神奇縮小人》 The Incredible Shrinking Man

圖像輸出、錄像  
Graphic prints, video



2010~

《超神奇縮小人》為一長期調查關於將人類縮小化後的各種可能。較矮小的人類所需的資源也會比較少，也更能夠與地球平衡共處。此計畫就人類對於增長的普遍偏執提出反對立場，並提倡學習降低慾望。《超神奇縮小人》是一個已經進行超過十年的全方位研究，目的在顛覆對於高尺寸及持續增長的根深蒂固偏好。計畫囊括了一系列各種事實、虛構、調查等內容，主要前提是希望人類能夠進一步思考關於縮小、小尺寸等相關概念，因為小者將在未來繼承地球。

*The Incredible Shrinking Man* is a long term investigation into the ramifications of downsizing the human species. Smaller and shorter people need less resources and are more able to exist in balance with the planet. The project is also a pamphlet against humanity's general obsession with growth, and an exercise in learning to desire less. *The Incredible Shrinking Man* comprises over ten years of ongoing holistic research seeking to disrupt deeply rooted preferences for greater size and continuous growth. As an eclectic collection of facts, fictions and investigations, the main premise is the understanding that we need to pay more attention to notions of shrinking and smallness. The small shall inherit the Earth.



《超神奇縮小人》The Incredible Shrinking Man, 2010~



《超神奇縮小人》The Incredible Shrinking Man, 2010~

### 阿恩·亨德里克斯 Arne HENDRIKS

阿恩·亨德里克斯是位鑽研藝術與反事實設計的藝術研究者，其研究涉及人類在地球的定位，以及這個被設計的世界是如何從人們的慾望和恐懼中所產生的。亨德里克斯透過作品提出另類的人類生存模式的發展，以及如何將這些模式轉譯至社會、政治、經濟價值與架構中，不著墨在這種改變的外部化，而是主要體現在創新的概念上，企圖經由實踐，啟動心理和身體的變化，透過邊做邊學，進行終身學習。亨德里克斯習慣公開進行中的研究，讓大眾能夠成為他的調查的參與者。目前是瓦赫寧恩大學暨研究中心的駐村藝術家，同時也在恩荷芬設計學院擔任教授一職。

Arne HENDRIKS works as an artistic researcher in the field between art and counterfactual design. His investigations revolve around the theme of mankind's place on Earth and how the designed world emanates from our desires and fears. HENDRIKS' work proposes the cultivation of alternative human modes of existence and their subsequent translation into social, political and economic values and structures. Rather than the externalisation of such change, mostly manifested in the notion of innovation, the artist seeks an internal psychological and physical change though practise, learning by doing, and lifelong learning. HENDRIKS prefers to present ongoing research allowing the public to become an accomplice in his investigations. He currently holds a position as artist in residence at Wageningen University & Research, and is a professor at the Design Academy in Eindhoven.

## 《潛在的圖形草案——燈箱》 Latent Figure Protocol lightboxes

特製照片燈箱  
Custom photo-lightboxes



2007-2012

《潛在的圖形草案》(LFP) 是一個生物媒體裝置，採用 DNA 採樣創造出特殊的圖像。作品從科學實驗室作展開，然後將實作結果拍攝成影片，在展覽期間播放。

《潛在的圖形草案》應用一種反應凝膠和電流，產生跟所使用的 DNA 採樣相關的圖像，比方說代表版權的符號 ©，以及二進位數字「01」，這些都是從一個工業化生產的有機體（一種稱為「pET-11a」的細菌質體）所提煉產出，企圖突顯有機生命改變中的定位和生命有機體的相關道德問題。

《潛在的圖形草案——燈箱》(Latent Figure Protocol lightboxes) 是此計畫原始六個圖像實驗，在這每一個 12 吋大的燈箱內呈現一幅 DNA 凝膠的完整圖像，並將 DNA 的處理過程的紀錄重疊其上，完整表現出該幅圖像的製作過程。每一個欄位同時列出了用來處理每一欄 DNA 凝膠中的 DNA 的酶。這些有標註的圖像都是一個開放原始碼的配方，並且也是一個科學證據。這六幅出自於凡諾斯透過 DNA 凝膠製作的圖像都在燈箱內被記錄與呈現。這些燈箱也是由凡諾斯所設計，模擬透過透視箱觀察 DNA 凝膠的模式。

### 概念緣起：

每一幅 DNA 指紋背後所代表的是強大的法律權威性，被認為是最值得信賴的身份證明形式。不過，卻也普遍的被大眾誤解成是唯一的一個人類識別標識。其中所蘊含的複雜片段圖也被大眾認為是大地之母所寫下且不可更改的資料，每一筆都對應著一個生物。然而，有上百種不同的酶、引子 (primer)，以及分子探針，可以用來分裂 DNA 並且產生片段圖，也就是 DNA 指紋。這些片段圖能夠告訴我們進行實驗的研究室以及其中所複製的受試者的許多相關資訊。而凡諾斯的論點是，DNA 圖像就是時常被自然化 (naturalized) 的文化構念 (social construct)。

《潛在的圖形草案》同時也對遺傳命提出質疑，也就是認為 DNA 不僅為我們的外貌提供模板，而且也決定了我們在社會中的位置。這種想法好比 DNA 決定了我們的收入多寡，或是我們的犯罪傾向。這類的想法在優生時代非常普遍，人們也在過去的二十年對這種思想再次感到興趣。《潛在的圖形草案》圖像透過隨機的方式回應這種決定論的觀點，經由實質透過受試者本身的 DNA，再現他／她的文化意義。

### 科技／科學技術：

《潛在的圖形草案》所使用的「濕性一生物」(wet-biological) 技術是在 2006 至 2012 年間，結合 DNA 採樣的限制酶切割反應和凝膠電泳技術所發展而成。《潛在的圖形草案》的成像過程將 DNA 切割成圖像所需的正確尺寸，基本上就是逆向操作分子生物學。通常科學家會利用成像技術來決定一個生物的基因排序，而《潛在的圖形草案》則是使用從網路資料庫取得的已知排序來製作出「已被安排過」的圖像。

規劃這些圖像必須先瞭解需要哪一種大小的 DNA，透過哪種適當的速度移動於每一個圖像欄位中，以及哪一種化學酶可以被用來切割出哪一種尺寸。DNA 在凝膠中移動的速度與其大小成反比。為了確定合適的片段大小，藝術家先寫出了一個模擬程式，用以初步確定理想的 DNA 大小，必須使用哪種尺寸的關係。之所以可以這樣做，是因為許多生物都具有穩定的 DNA 區域，其中幾乎沒有任何差異。接下來，程式便詳細地列出了每種酶可產生的 DNA 大小，並模擬了這些酶的各種可能組合，嘗試數千種組合之後，將每個組合與理想的設定比對，進行排名。找到了最理想的組合之後，程式便將輸出可以用來與 DNA 混和製成圖像的最理想的酶組合。

Latent Figure Protocol (LFP) is a bio-media installation that uses DNA samples to create emergent representational images. The installation begins with a live science experiment, the result of which is captured by video camera and viewable for the duration of the exhibit. Employing a reactive gel and electrical current, LFP produces images that relate to the DNA samples used. For example, a copyright symbol "©" and a binary number "01" were derived from the DNA of an industrially-produced organism (a bacterial plasmid called "pET-11a"), illuminating ethical questions around the changing status of organic life and the ownership of living organisms.

The Latent Figure Protocol lightboxes evidence the six original Latent Figure Protocol imaging experiments. These 12-inch light-boxes each show a fully complete image of the DNA gel, with the DNA processing procedure inscribed over-top. This image contains the full protocol by which the image was produced. The enzymes used to process the DNA in each column of the DNA gel are listed at the bottom of each column. The annotated image is an open source recipe and a scientific proof. Each of the six images that VANOUSE produced in DNA gels were documented and presented in lightbox form. The lightboxes are designed by VANOUSE to replicate viewing a DNA gel on a transilluminator.

### Conceptual background:

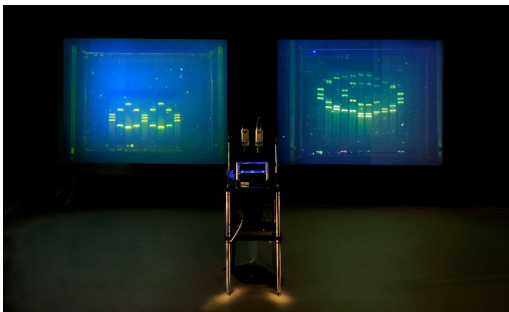
A "DNA fingerprint" is an image invested with incredible legal authority—the most trusted form of identification. Yet it is often misunderstood by the lay public to be a single, unique human identifier. Its complex banding patterns are generally thought as an unchanging sentence written by mother nature herself that corresponds to each living creature. However, there are hundreds of different enzymes, primers and molecular probes that can be used to segment DNA and produce banding patterns ("DNA Fingerprints"). These banding patterns that appear tell us as much about the laboratory as the subject that they appear to reproduce. The artist's point is that the DNA image IS a cultural construct that is often naturalized.

LFP also confronts the notion of genetic destiny—the idea that DNA provides a template not only for our physical appearance but also for our place within society. For instance, it determines our income levels or our predilections toward criminality. Such ideas, common in the Eugenic era, have seen revived interest in the past twenty years. LFP images cheekily address this determinist viewpoint, literally reproducing the subjects' cultural significance via his/her own DNA.

### Techno/Scientific:

The "wet-biological" techniques used in LFP, developed from 2006-2012, are based in restriction digestion of DNA samples and gel electrophoresis. The LFP imaging process relies on cutting DNA to the sizes needed to make the correct image. This is essentially doing molecular biology IN REVERSE. Usually scientists use imaging techniques to determine an organism's genetic sequence, whereas LFP utilizes known sequences in online databases to produce "planned" images.

Planning these images requires knowing what size DNA is required to move at the correct speed in each column of the image and what chemical enzymes will cut to these sizes. DNA moves through the gelatin at a rate inversely proportional to its size. To determine the proper band-size, the artist wrote a simulation program that first determines what ideal sizes DNA should be to produce the proper bands. This is made possible because many organisms have stable regions of DNA with little variance. Then the program exhaustively catalogues the sizes of DNA that would be made by each possible enzyme and simulates varied possible combinations of these enzymes. The program tries thousands of combinations for each lane of the image and ranks each combination according to each band's deviation from the ideal. Once the best combination is discovered, the program outputs the best combination of enzymes which the artist should mix with DNA to make the image.



《潛在的圖形學》 Latent Figure Protocol, 2011

## 保羅·凡諾斯 Paul VANOUSE

保羅·凡諾斯是位藝術家，同時也是紐約州立大學水牛城分校的藝術教授，以及 Coalesce 生物藝術中心的創辦總監。他透過跨領域的方式以及極富熱誠的業餘精神進行其〈生物媒體〉藝術實踐，透過分子生物學的技術挑戰基因組的「炒作」(hype) 現象，並且探討關於當代生物科技的各種重要議題。他的生物媒體與互動電影計畫曾在美國各地展出，並且於全球超過 25 個國家巡迴展覽。曾於以下場館與機構舉辦個展：美國水牛城 Burchfield-Penny 藝廊 (2019)、美國費城 Esther Klein 藝廊 (2016)、美國加州大學爾灣分校 Beall 中心 (2013)、德國慕尼黑 Muffathalle 藝術中心 (2012)、德國柏林 Schering 基金會 (2011)、斯洛維尼亞盧比納 Kapelica 藝廊 (2011)。另外也在以下場館參與展覽：美國明尼蘇達州明尼亞波利斯克藝術中心、紐約新美術館、阿根廷布宜諾斯艾利斯國立美術館、德國柏林世界文化之家、德國藝術與媒體中心 (ZKM)，以及美國水牛城歐布萊特·諾克斯美術館。作品出現於各大雜誌期刊評論，包括《Art Journal》、《ARTnews》、《Art Papers》、《Flash Art》、《Leonardo》、《New Art Examiner》、《Afterimage》與《紐約時報》。

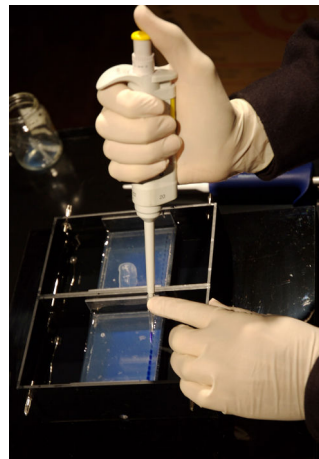
凡諾斯的計畫曾受到許多單位的支持，包括洛克菲勒基金會、創意資本基金會、美國國家藝術贊助基金會、紐約州藝術委員會、紐約藝術基金會、賓州藝術委員會、太陽微系統公司，以及美國國家科學基金會。曾獲頒的藝術節獎項包括奧地利林茲電子藝術大獎 (2010、2017、2019)，以及西班牙馬德里 VIDA 國際人造仿生藝術大賽 (2002、2011)。於紐約州立大學水牛城分校取得藝術學士學位，美國卡內基美隆大學取得藝術碩士學位。

自 2000 年起，凡諾斯便開始專注於將科學溝通上所使用的晦澀符碼轉譯為更廣義的文化語言。其計畫《潛在的圖形學》、《視線翻轉》(Ocular Revision) 與《嫌犯翻轉中心》(Suspect Inversion Center) 應用分子生物學的技術挑戰關於基因組的炒作，回應關於 DNA 指紋鑒定的相關議題。近期的創作《勞力》(Labor, 2019) 是一個以嗅覺為主的生物媒體裝置，在無人類的條件之下，產出人類汗液的味道。味道經由在展覽空間內的三個生物反應器培養人類皮膚上的細菌所產生。採用詩性的手法反映工業社會從人力到機械的轉移，此計畫於 2019 年獲頒奧地利國際電子藝術競賽尼卡金獎。

Paul VANOUSE 是位藝術家及教授，任職於紐約水牛城分校的 Coalesce Center for Biological Art。他是一位充滿激情的業餘導師，他的〈生物媒體〉藝術實踐，運用分子生物學技術挑戰「基因組 hype」並探索圍繞當代生物技術的批判性議題。他的生物媒體與互動電影計畫曾在超過 25 個國家及廣泛地跨過美國。最近個展包括：Burchfield-Penny Gallery 在 Buffalo (2019)，Esther Klein Gallery 在 Philadelphia (2016)，Beall Center 在 UC Irvine (2013)，Muffathalle 在 Munich (2012)，Schering Foundation 在 Berlin (2011)，及 Kapelica Gallery 在 Ljubljana (2011)。其他場館包括 Walker Art Center 在 Minneapolis，New Museum 在 New York，Museo Nacional 在 Buenos Aires，Haus der Kulturen der Welt 在 Berlin，ZKM 在 Karlsruhe，及 Albricht-Knox 在 Buffalo。他的工作已被討論於期刊包括：《Art Journal》、《Art News》、《Art Papers》、《Flash Art International》、《Leonardo》、《New Art Examiner》、《After Image》及《The New York Times》。

VANOUSE 的計畫曾獲得 Rockefeller Foundation、Creative Capital Foundation、National Endowment for the Arts、New York State Council on the Arts、New York Foundation for the Arts、Pennsylvania Council on the Arts、Sun Microsystems、及 National Science Foundation 的支持。他獲得的獎項包括 Prix Ars Electronica 在 Linz, Austria (2010, 2017, 2019) 及 Vida, Art and Artificial Life competition 在 Madrid, Spain (2002, 2011)。他擁有來自 Carnegie Mellon University 的 MFA 及來自 Buffalo 的 BFA。

自從 2000 年，VANOUSE 便特別關注於將科學溝通上所使用的晦澀符碼轉譯為更廣義的文化語言。他的計畫《潛在的圖形學》、《視線翻轉》(Ocular Revision) 與《嫌犯翻轉中心》(Suspect Inversion Center) 運用分子生物學的技術挑戰「基因組 hype」並探索圍繞 DNA 指紋鑒定的批判性議題。他的最近作品《勞力》(Labor, 2019) 是一個以嗅覺為主的生物媒體裝置，產出人類的汗液，並在展覽空間內，透過三個生物反應器培養人類皮膚上的細菌。此計畫在 2019 年獲頒 Golden Nica 於 Prix Ars Electronica。



《潛在的圖形學》 Latent Figure Protocol, 2011



## 《流動》 Circle

複合媒材、植物  
Mixed media, plants



2019

動態自造實驗室長期關注社會設計與綠色能源相關議題，作品《流動》在種滿植物的平台，同時種植約 120 個土壤發電裝置，植物行光合作用後所產生的酸，讓土壤裝置產生電力，提供 LED 燈所需電能，使其產生植物生長時所需的波長之光，讓植物行光合作用，使其成為自體循環的作品。本裝置同時提升鎖水性設計，滿足植物對水的需求，並改善電極材質、形狀、接觸面積等，提升發電效率。憑藉自體能量的轉換，打破能量的主從關係，嘗試創造一種自體生長的循環。

Revolving its creative philosophy around social design, FabLab Dynamic pays particular attention to green energy and several related issues. It previously ran a series of workshops on soil power generation and initiated an ecological protection project titled *Free Fireflies*, trying to find an environmentally-friendly way of power generation from green and renewable energy sources for the purpose of firefly conservation. The work, *Circle*, consists of a floating platform covered in green vegetation and equipped with around 120 soil power generation devices. The acid produced by the plants via photosynthesis will drive these devices to generate electricity required to power the LED lights. These LED lights go on at a preset power, so as to offer constant light wavelengths that stimulate the plants' growth, thereby making this work circulate in an autologous fashion. Apart from providing the plants with far infrared and blue light sources, this installation has an enhanced water-locking base that meets the plants' need for irrigation. Moreover, the material, shape, and contact area of the electrodes are improved insofar as to increase the devices' power generation efficiency. By virtue of the self-powered system, an interdependent relationship eventually emerged between the plants and the power generation devices. To sum up, this installation is designed to transcend the traditional confines of the master-slave model between energy and its sources by technologically creating an endless, autologous circulation.



《流動》Circle, 2019



《流動》Circle, 2019

### 動態自造實驗室 FabLab Dynamic

動態自造實驗室以社會設計 (social design) 為發展核心方向，透過數位製造技術，針對社會需求而提出改善、改造的創新專案，發展在地特色。主要提供開放空間、完善設備、專業技術諮詢為核心營運內容，透過跨領域合作，建立跨文化、藝術、設計、工業、建築、製造、環境等多元領域平台，鼓勵在製造過程中以開放設計概念，輔以網路資訊公開 (open source)，搭配各式工作坊、講座等教育推廣活動，發展「國際化」架構中的「在地化」，達到和國際接軌、創新研發製造等目標。

Founded in social design as the core development direction, FabLab Dynamic focuses on the studies and practices of culture, art, design, industry, architecture, and manufacture. From projects of social design to multidisciplinary collaborations, FabLab Dynamic keeps trying to push the boundaries and look forward to all possibilities in the future.

## 《改造樂園 (貓)》 Modified Paradise (Cat)

基因轉殖蠶絲、棉  
Genetically-modified silk, cotton



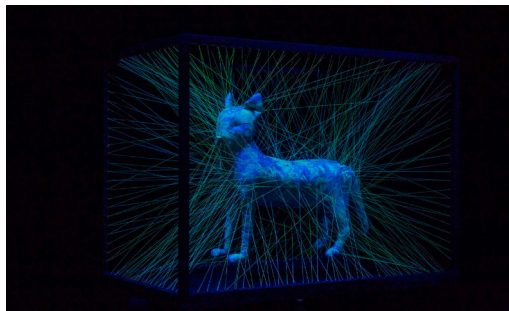
2018

另類農場 (Another Farm) 應用基因改造的發光絲綢創作出具有超現實感的雕塑，作品同時結合紡織與傳統工藝。這種會發光的絲綢是使用了蠶的綠色螢光蛋白 (GFP) 基因所製作而成。在現今社會中，透過基因改造的各種先進技術常常引發道德問題，並且也時常出現在反烏托邦科幻小說情節裡。不過，蠶、被馴養的動物、家畜和植物，以及許多其他例子，在過去許多世紀以來都曾經因為控制或選擇性育種的原因被基因改造過，而且這些案例通常未曾引發道德討論。

《改造樂園》雕塑系列 (2018) 企圖將創新與激進的科技與利用大自然資源的傳統產業結合，希望重新思考道德的界線，以及人類與自然之間的互動。

Another Farm works with genetically-modified glowing silk to create surreal sculptures that incorporate textiles and traditional craftsmanship. Glowing silk created by inserting the GFP gene in silkworms, and other advancements in genetic modification today often raise ethical questions and are topics for dystopian Science Fiction. However, silkworms, domesticated animals, livestock and flora among many other examples, have for centuries been genetically modified through controlled or selective breeding and are often not associated with ethics.

*Modified Paradise* (2018) is a series of sculptures that aim to integrate new and radical technologies with traditional industries that have exploited nature—to rethink the boundaries of ethics and humanity's interaction with nature.



《改造樂園 (貓)》 Modified Paradise (Cat), 2018



《改造樂園 (洋裝)》 Modified Paradise (Dress), 2018

### 另類農場 Another Farm

「另類農場」是一個成立於 2018 年末的藝術團體，同時也是大崎洋美 (Sputniko) 和串野真也所共同進行的計畫。透過與科學家、工程師合作，另類農場探討人類與自然之間的關係，同時創作結合科技與傳統技藝與文化的作品。展覽包括紐約庫珀·休伊特國立設計博物館《Nature》(2019)、米蘭三年展 (2019)、奧地利林茲電子藝術節 (2019)、東京森美術館《未來與藝術展》(2019) 等。

Another Farm is a collective that in late-2018 and is a project between Hiromi OZAKI (Sputniko) and Masaya KUSHINO. Working with scientists and engineers, Another Farm explores the relationship between humanity and nature, and produces works that bring together new technology and traditional techniques and cultures. Past exhibitions include *Nature* (2019, Cooper Hewitt Museum, New York), Triennale di Milano (2019), Ars Electronica (2019, Austria) and *Future and the Arts* (2019, Mori Art Museum, Tokyo).

## 《生物訊號\_模控》 Biosignal\_Cybernation

裝置 (銅、鋁、木頭、電子元件與機構、燈、聚丙烯酸鹽、無土介質、營養劑、碗豆)

標本 (碗豆、環氧樹脂)

Installation (copper, aluminum, wood, electrical components and parts, lights, sodium polyacrylate, soilless medium, nutrient, peas), specimen (peas, epoxy)



2018-2019

智人介入生物發展的歷史淵流演長，然而人類是否擁有特權來支配植物，並且往往沒有考慮到人類的行為對生態圈有何影響？於是藝術家們嘗試創建一個以生物訊號控制植物生長的裝置，通過技術來凸顯上述的技術介入環境的現象。

以科技時代來說，人類通過不同的訊號值知生命的存在，比如說心電圖、共振圖，把生命變成了一個訊號狀態，這是這個世代一個非常鮮明的視覺經驗。

當觀者在 3D 建模軟體中畫出莖的生長路徑，再將這個模型匯入裝置的控制程序，經過一系列的演算法則，轉化為馬達旋轉的角度，來控制植物的生長過程中受到的重力和光照的方向，從而列印出建模軟體中預定的樣本。

這個數位化及訊號化的植物規劃，其實回應著人類自農業耕時代以來長期馴化植物的歷史，而如今人類的馴化能力擴及了以程式及基因進行馴化，使用演算法，使不可預期的生命型態變為可掌控的。這時，不禁要思考繼續使用技術來干預自然是是否明智的決策？人類有權這麼做嗎？或者當人類試圖建造一個新伊甸時，正面臨著再次失落的天堂？

本作品之「標本原色保存技術」由國立清華大學生命科學系李家維、楊子揚支援

From the first era of agriculture till now, human beings have continually intervened in the development of the natural world through many kinds of technologies. However, as an intellectual being, Homo sapiens never ask if what we have done to the ecosystem was a damage in whole, and if we had the right to alter the environment and make it what we want it to be. In short, civilization is about manipulating nature through technology.

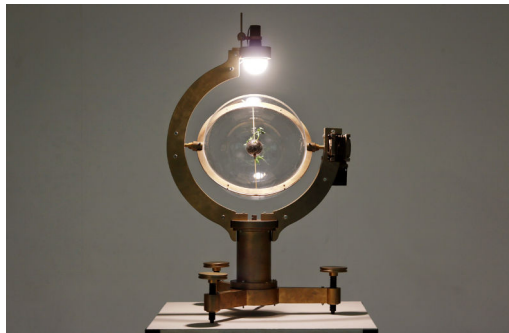
Based on the questions above, it is attempted to build a mechanical instrument to highlight how technology overly interrupted the natural world. Unlike any other era before, we now live in an era in which electronic information, algorithm and computation codes dominate our knowledge about what life is—we read lives through numbers, diagrams, charts, etc. In our age, any life sign could be translated into electrical signals; for example, electrocardiography has already become a very familiar visual icon for our generation.

To build this machine, a database of plant samples was first created, for the data will help fully control and manipulate the samples, such as the speed and the path of growth. Once the audience draws an outline of the plant in 3D model program, the computer will transmit the information into codes to control the movement of the motors for adjusting the position and angles of the light and basin, in order to cultivate the shape and form of the plant just as the drawn model.

Through the digitalization of all growing factors, our machine is trying to echo the history of domestication of plants, since the dawn of agriculture.

From traditional plant breeding to genetic engineering and now with the help of algorithms and programming cultivation technology, human beings will be able to build up a complete cybernetic system of nature. Still, we need to think about whether it is right to use technology to intervene in the natural environment, whether we have the right to do so, and whether what we are doing does more harm than good to nature. Or are we now facing a paradise lost again while we are trying to build a neo garden of Eden?

The "plant specimens intact preservation techniques" is supported by LI Chia-Wei, LIN Tzu-Yang from Department of Life Science, National Tsing Hua University.



《生物訊號\_模控》 Biosignal\_Cybernation, 2018-2019



《生物訊號\_模控》 Biosignal\_Cybernation, 2018-2019

## Y2K

Y2K 由兩位出生於千禧年數位危機，成長背景卻截然不同的新銳藝術家周巧其、胡悠揚所組成，自 2018 年時啟動了「Biosignal」實驗系列，此系列以科學基礎反動虛構推理、或以計算機運算達成生物似有回饋的擬態等創作慣例，並且遵守「傾聽」、「增強」、「不違反生命欲求」的原則，以權力下放使作品具備主體性，開啟投身於展場的實驗。

Y2K is an artist duo CHOU Chiao-Chi and HU You-Yang. Both were born on the cusp of the millennium digital crisis, but grew up with completely different backgrounds. Together they launched the *Biosignal* experimental series in 2018, using scientific foundations to respond to their own fictional reasoning, or integrating computer calculations with organic forms to mimic biological feedback and response. Their art practice follows the underlying principles of "listening," "enhancing," and "not violating the desire for life."

## 《血基質》 Haem

混合媒材裝置 (訂製指南針、千花玻璃碗、文本、錄像、水、電子元件)  
Mixed media installation (custom-made compass, murrini glass bowl, text, sound, HD-  
video, water, electronics)



作品《血基質》的物質基礎是由從——人類胎盤——這種不尋常的來源所取得的鐵質所構成。這種具有迷宮般複雜血管組織的過渡性器官，是母親與胎兒之間的主要橋樑。大量的鐵質在這個過程中扮演著重要的角色，在這個如迷宮的環境中從母親將氧氣輸送給胎兒。

一支由生產後已無用的人類胎盤血所取得的鐵質製成的指南針，象徵著前述的動態過程。此物件淬礪了孕育新生命背後所付出的辛苦、上千小時的體液交換、新生命與既存生命初次交匯的第一時刻。這件作品結合藝術、生命科學以及冶金學，並透過非傳統的方式表現出地球上物質與人體之間最基本的相互關係。

《血基質》於裝置中的這支指南針被漂浮在一只旋轉的玻璃碗之中，靈感源自於胎盤的組織學圖像。此裝置作品也包括了聲音創作、創作過程中記錄下 69 個捐贈的胎盤重量與出生日期，另外也包括了的一部高畫質紀錄影片。

作品所有權說明：

此計畫是由西西莉亞·楊森與荷蘭癌症研究所的羅德里戈·萊特·德·奧利維拉 (Rodrigo Leite de Oliveira) 博士共同執行，由 2016 年生物藝術與設計獎委託進行，並且獲得荷蘭健康研究與發展組織 (ZonMw) 的支持。計畫同時與阿姆斯特丹市的 OLVG 醫院西館以及一位名為蒂斯·范德·馬納克 (Thijs Van der Manakker) 的鐵匠合作。高畫質錄像由錫尼·托拉·卡爾斯魯德 (Signe Torå Karsrud) 與塞爾吉奧·庫爾沃·岡薩雷斯 (Sergio Cuervo Gonzalez) 共同製作，馬切洛·索達諾 (Marcello Sodano) 負責聲音合成。

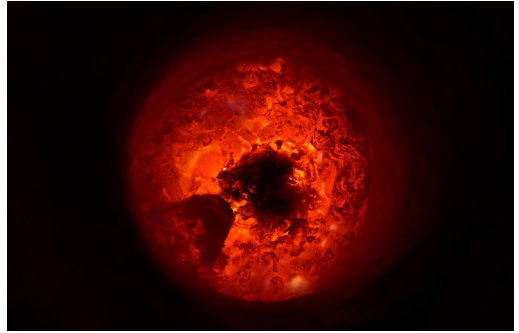
The physical basis of Haem is iron derived from an unexpected source – the human placenta. Although this transitional organ possesses a complex labyrinth of blood vessels, the placenta provides a direct connection between mother and developing child. Iron, plentiful throughout this process of exchange, plays an essential role, moving through this “maze,” guiding oxygen from the mother to the fetus.

To symbolise this directed movement, a compass needle made out of metallic iron derived from the blood contained in discarded, postpartum human placentas was created. This object concentrates the labor of dozens of births, of thousands of hours of fluid exchange, at the earliest meeting point between new and existing life. By bridging the fields of art, life sciences and metallurgy, the work shows in an unconventional way the fundamental interconnections between elements of the earth and the human body.

The Haem installation consists of the compass needle, presented as a guidance tool floating in the midst of a rotating glass bowl inspired by histological imagery of the placenta. Accompanying the installation is a sound composition and a selective archive about the process, shown as a register of the 69 donated placentas weight and date of birth and an HD-video.

Work credit:

Cecilia JONSSON in collaboration with Dr. Rodrigo Leite DE OLIVEIRA of the Netherlands Cancer Institute. The project was commissioned by Bio Art & Design Awards 2016 with the support of ZonMw. In cooperation with OLVG West hospital and blacksmith Thijs VAN DER MANAKKER, HD-video by Signe Torå KARSRUD and Sergio Cuervo GONZALEZ and sound composition by Marcello SODANO.



《血基質》Haem, 2016, 紀錄片節錄 Excerpt from the documentary

## 西西莉亞·楊森 Cecilia JONSSON

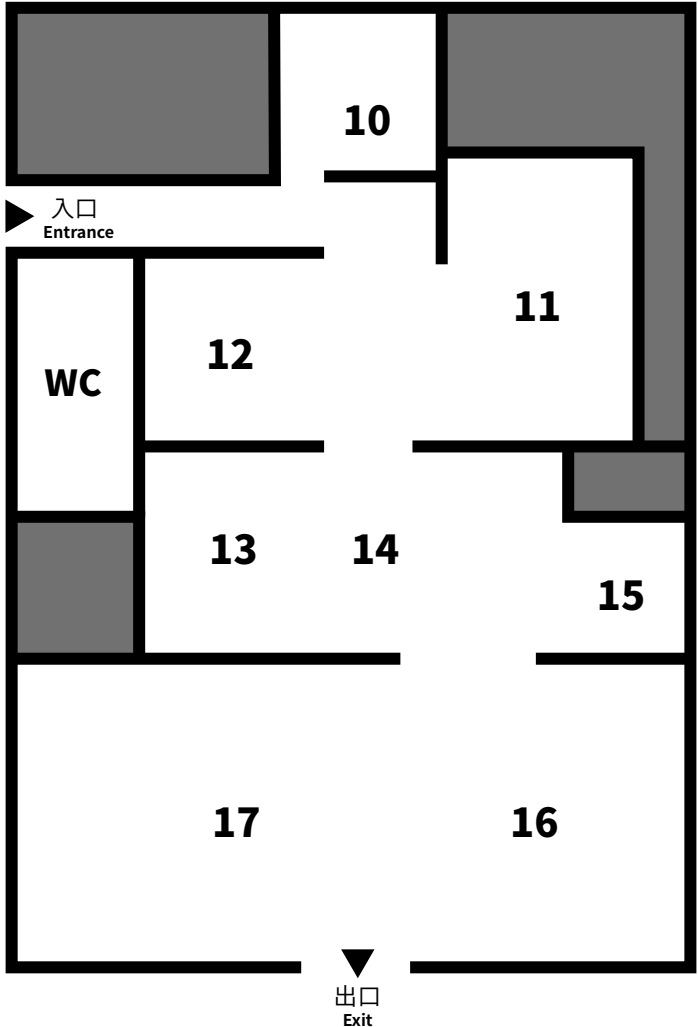
1980 年出生於瑞典的西西莉亞·楊森透過藝術性的現象觀察結合關於事實的詩性研究，希望瞭解自然界以及人類與我們所存在的生態系統之間的關係。其所創作的裝置、雕塑、聲音與錄像作品，是由物質性與場域性的調查、客觀的研究方式，與個人主觀經驗形塑下的當代煉金術所交織而成。她的創作計畫透過探討構成人類生存基礎的原物料的物理特質與其所代表的意識形態，研究從地球初始的最深處延伸至開採、轉化，乃至全球性的剝削。

楊森擁有挪威國立貝爾根藝術設計學院設計研究所 (The Bergen Academy of Art and Design) 的藝術碩士學位，並且完成北歐聲音藝術 (Nordic Sound Art) 學程。曾參與歐洲、亞洲與澳洲多場個展與聯展，作品獲頒多項國際獎項與殊榮，包括「COAL 藝術與環境獎」入圍 (2018)、「林茲電子藝術大獎」混種藝術優選 (2017)、生物藝術與設計獎 (2016)、西班牙「VIDA16.0 國際人造仿生藝術大賽」第二名 (2014)。楊森目前旅於荷蘭阿姆斯特丹與挪威貝爾根兩地。

Cecilia JONSSON (b. 1980, Sweden) combines artistic observations of phenomena and the search of poetry in the factual, in order to understand the realm of nature and in what ways humans relate to the ecosystem we are part of. Her installations, sculpture, sound and video works are devised by strategies in which materiality, site-specific navigation and objective research methods are woven together through a personal, subjective experience of contemporary alchemy. Her projects develop as investigations of physical and ideological properties of the raw materials that form the basis of human existence: from origins deep in the earth, to the extraction, transformation and global exploitation.

JONSSON holds a MA in Fine Arts from the Bergen Academy of Art and Design and the Nordic Sound Art program and has had numerous solo and group exhibitions in Europe, Asia and Australia. Her artistic work has been awarded international awards and mentions such as COAL Art and Environmental Prize (nominee, 2018), Prix Ars Electronica, Hybrid Art (honorary mention, 2017), Bio Art & Design Awards (2016) and VIDA 16.0 Art & Artificial Life International Awards (2nd prize, 2014). JONSSON currently lives between Amsterdam, the Netherlands and Bergen, Norway.

## 二樓展區 2F



- 10** 《僥身之境》-林月霞 P.26  
*The Hot Zone-The Evolving Body and Environment*  
 -LIN Yueh-Shiar
- 11** 《身體系譜實驗室: AI 化基因辨識方案》 P.28  
 -鄭先喻、吳宜暉、在地實驗  
*Body Genealogy Laboratory:  
 The AI Identification Program for Cultural Gene*  
 -CHENG Hsien-Yu, WU I-Yeh, ET@T
- 12** 《合生體計畫(二):土壤成因》-江俊毅 P.32  
*The Holobiont Project II: Factors of Soil Formation*  
 -CHIANG Chun-Yi
- 13** 《栽植聆聽者》-鄧心瑀、徐立茵、何捷睿 P.34  
*Homo Vegetation*  
 -DENG Sin-Yu, HSU LI-Han, HO Chieh-Jui
- 14** 《蔓·慢》-紅貴賓∞無毛貓(侯霽庭、楊子逸) P.36  
*Weave Weed*  
 -Poodle∞Sphynx (HOU Chi-Ting, YANG Tzu-Yi)
- 15** 《快樂腳》-侯君儀 P.38  
*Happy Feet-HOU Jiun-Yi*
- 16** 《病毒之愛》-林沛瑩 P.40  
*Virophilia-LIN Pei-Ying*
- 17** 《紫符》-理纖換 P.42  
*qpHesitation-transpossum*

## 《儼身之境》

### The Hot Zone-The Evolving Body and Environment

沉浸式錄像  
Immersive video  
  
2020

「當世界緩緩同時又急速離開已然獲得的真理條件、意義條件、價值條件時，要緊的就是片刻不停思考這個世界。」

——讓·呂克·南希 (Jean-Luc Nancy)

《The Hot Zone》是自 2016 年至今仍持續進行的一個計畫，開始從於生命之源的心臟，隨後細胞，至《儼身之境》作品對阿茲海默症腦神經細胞變異的研究，此作品與臺中中山醫學大學阿茲海默實驗室合作，過程中發現，無論是身體細胞或器官的運作，都恰能對應人的外在行為與世界的關係。身體是個獨立卻依賴、物質與心靈兼具的矛盾複雜體，在新冠病毒疫情蔓延前，對體內與外在世界的連結總被忽略，而一場疫情改變價值觀，也更督促該思考的不僅是這個世界，而是經此事件後，每個人是否會變成另一個「Hot Zone」(熱區)。《儼身之境》是《The Hot Zone》系列的作品之一，專注在阿茲海默症的腦神經細胞的變化，從腦細胞的健壯到萎縮，導致無法正常傳遞訊息，最終記憶漸喪失，逐漸與外在世界失聯。而這些恰呼應了現在新冠病毒的疫情狀態，隔離使人失去連結，沒有聯繫的世界最終將至頹敗，終成廢墟。

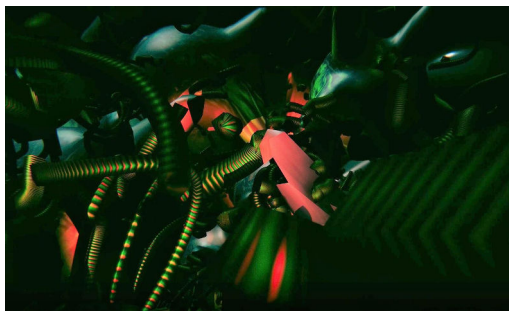
作品營造虛擬的沉浸感，藉此回應，當代的人雖處在一種虛與實相互交替的「儼」地，但決定權更可操之於自己，可以讓自我無止盡延伸，也可自我侷限。另一方面也探討藝術在這場世紀浩劫後，對自我身體的認知與外在世界將會有何變異。

"When the world slowly yet abruptly leaves the prerequisites of truth, meaning, and values, it is vital to constantly think about the world."

—Jean-Luc NANCY

Starting from an exploration into the heart (the origin of life) and cells, *The Hot Zone* has been an ongoing project since 2016. The series of works titled *The Evolving Body and Environment* is LIN Yueh-Shiar's latest bold attempt to examine how the brain cells of Alzheimer's patients undergo mutations. This is a cooperated effort with the Alzheimer's Laboratory run by CSMU (Chung Shan Medical University). In the process, the artist has identified a causal association between the way cells or organs operate and how humans are affected by and respond to the world.

As the second series of *The Hot Zone*, *The Evolving Body and Environment* pays particular attention to the mutations of brain cells of those suffering Alzheimer's disease. It is a process where healthy brain cells become weaker and weaker, until the brain stops conveying messages and functioning, resulting in the victim's loss of memory and disconnection with the outside world. All this corresponds to how the coronavirus epidemic affects people. Isolation leads to people's disconnection, whereas a world without connection is doomed to dissolve and then ruin. This space of this work is aimed to create a sense of virtual immersion and clarifies the idea of *The Evolving Body and Environment*, which reflects modern people's state as we are inevitably placed in a virtual-and-real situation. But we have the final say on whether we will either be stretching into eternity, or pose limitations on ourselves. The second aim of this series lies in exploring how art is going to change the way we regard our bodies and the outside world once the disaster of the century is over.



《儼身之境》The Hot Zone-The Evolving Body and Environment, 2020, 錄像片段 Video excerpt



《儼身之境》The Hot Zone-The Evolving Body and Environment, 2020, 錄像片段 Video excerpt

## 林月霞 LIN Yueh-Shiar

臺灣嘉義人，1985 年中興中文系畢業、2009 年東海美術研究所畢業、2016 年臺灣師大美術媒體組博士班。現居美國休士頓、臺灣。近年以生物醫學與新媒體藝術結合為創作目標，並參與國內外個展與聯展，於 2020 年獲南瀛獎新媒體優選獎。

Originally from Chiayi, Taiwan, LIN Yueh-Shiar graduated in 1984 from the Department of Chinese Literature, National Chung Hsin University and then received her master's degree in art from Tung Hai University in 2009. She was later accepted into the art media division of National Taiwan Normal University's doctoral program in 2016. LIN is currently based between Houston in the United States and Taiwan. In recent years, her creative focus has been on integrating biomedicine with new media art and has shown her art in solo and group exhibitions in Taiwan and abroad. LIN is a winner of the 2020 Nanyang Awards' Merit Award in the New Media Category.

《身體系譜實驗室：AI 化基因辨識方案》  
*Body Genealogy Laboratory: The AI Identification Program for Cultural Gene*



2021

人類文明史上經常以「視覺表現」的觀點去記錄或評論身體動作。早自古典美術對身形的仿真臨摹到抽象表現，至現代性以降，心理學與文化研究辨別肢體語言、資訊工程學辨識影像，或是晚近人工智慧藉動力慣性預測人體動作等，無不意圖在記錄與分析動作的基礎上進行人文科學的創作與實踐。然而，這套藉由分析「肢體動作」發展的「形而上詮釋」思維與應用系統，卻鮮見於表演藝術。「身體系譜實驗室：AI 文化基因辨識方案」作品目的為應用「機器學習」的「圖像／影像辨識」技術，發展「文化辨識」的應用系統，試圖釐取肢體語言之淵源。

Throughout the history of human civilization, body movements have been often documented or commented from the viewpoint of visual composition. From the imitation and copying of figures in classical art to the abstract expression of modernity, to the use of psychology and cultural research in interpreting body languages, to computer science used to identify images, and lately to artificial intelligence applying dynamic inertia to predict human movements, all these efforts have aimed at creating humanistic practices based on the recording and analysis of actions. However, this kind of "metaphysical hermeneutic" system of thought and application developed by analyzing body movements is rarely seen in performing arts. The purpose of *Body Genealogy Laboratory: The AI Identification Program for Cultural Genes* is to apply image recognition technologies based on machine learning to develop an application system of "cultural recognition" that attempts to read the origin of body language.

《{ Substituted Cognition }》

軟體、機器學習、電腦、顯示器、投影機  
Software, machine, learning, computer,  
monitor, projector

《{ Substituted Cognition }》藉由機器學習透過攝影機去辨識物件以及人體動作，再由動作與物件的關聯性去找出網路上的廣告以及圖像拼貼顯示，在現今對於機器學習與人工智慧的應用，加上許多應用的突破，相對於人類社會在未來會更加的依賴。而在機器學習的架構下，人對於事物或是物件甚至行為的表現，都能夠藉由軟體或是硬體去辨識並且定義，這樣的現象，如同在搜尋引擎開始廣泛應用到現在深耕人的生活，也因為這樣的現象與趨勢，現代人對於記憶的使用也非常不同，往往只記憶關鍵字，需要時再藉由搜尋引擎去找出相關的資訊並加以利用，作品在這個前提的假設下，試圖去表達，機器學習以及人工智慧是否有可能去取代人的判斷與認知能力。生物在藉由判斷或是認知後再產生行為與反應，在未來，是否有可能我們需要藉由機器或是軟體去進行這項行為？是這次在製作作品時所思考的一個方向。在發展過程中，也經由訓練資料模型去替人的肢體動作下定義，以及基本的辨識通用的物件與環境光源對於人的肢體表現的應用。作品藉由先前的測試與方法的整理，以進行式與尚未完成的狀況下，去試圖凸顯認知與機器學習在快速發展下之後所有可能產生的現象與關係。

{ Substituted Cognition } is a work operated by machine learning to identify objects and human movements through computer vision, and then the correlation between actions and objects will be transferred into clues to find advertisements and image collages on the Internet. Nowadays, there are many applications of machine learning and artificial intelligence. The future of human society and behavior will be more dependent on that.

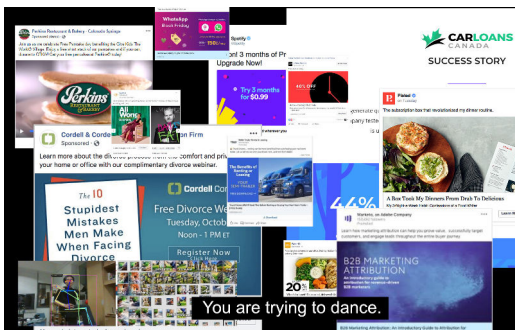
The human reaction toward behavior, object and things could be defined or observed by software, hardware and machine learning. This phenomenon is similar to how the advance of search engine service has risen and changed the way people memorize things. According to that, people start to only memorize the keywords instead of the whole contents and fetch the information and knowledge from the search engine when they need it. Under this premise, this work is trying to express that cognitive behaviors of human beings are likely to be replaced by machine learning or AI.

Creatures produce behaviors and reactions after judgment or cognition. The question here is to ask, do we have to rely on machines or software to react in the near future? It's also the direction of work to try to highlight possible phenomena and relationships that may occur after the rapid development of cognition and machine learning.

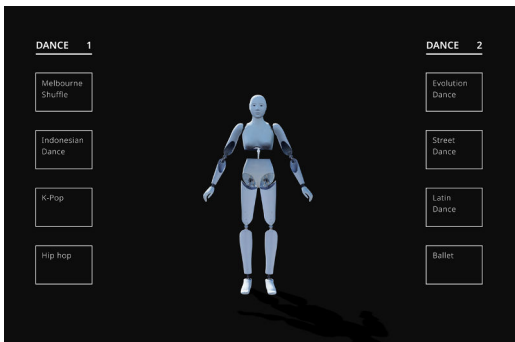
《誰是黃安妮》  
*Who Anne Huang Is*  
多媒體  
Multi-media

《誰是黃安妮》開發「肢體動作重混」系統，使用者可以選擇記錄身體動作的影片，提供給機械偶「黃安妮」來「學習」，甚至選擇兩隻不同舞作影片，讓黃安妮「混搭」出新的舞作。系統介面讓使用者得以多視點觀看，從中探索各舞蹈類別（如嘻哈、芭蕾、K-POP 等）的肢體表現，以及混搭舞作時舞者的折衝與演繹。

The work *Who Anne Huang Is* develops a system of "body movement remixing," through which users can choose a video recording of body movements, assign it to the "Anne Huang" mechanical puppet to "learn," and even choose between two different dance videos that Anne remixes into a new dance routine. The system interface allows users to watch from multiple viewpoints and to explore the physical performance of various dance styles (such as hip-hop, ballet, K-POP, etc.) as well as the dancers' own rendition and interpretation of the dance composition remix.



《Substituted Cognition》 / 《Substituted Cognition》, 2021, 作品示意圖 Demo picture



《誰是黃文浩》 Who Anne Huang Is, 2021

## 鄭先喻 CHENG Hsien-Yu

1984 年出生臺灣高雄，現職藝術家、軟體開發員。荷蘭 Frank Mohr Institute 互動新媒體與環境藝術碩士。創作以電子裝置、軟體、生物能源實驗裝置為主，內容多在探討人類行為、情感、軟體與機械之間的關係，試圖以賦能的方式賦予作品某種生命象徵或是存在意義，藉此隱喻對周遭環境的體會。曾獲 2014 臺北數位藝術獎首獎、2017 高雄獎優選、2019 銅鐘藝術獎。

Born in Kaohsiung, Taiwan, 1984, CHENG Hsien-Yu is currently an artist & software developer based in Taipei. Most of CHENG's works are electronic installations, software, and experimental bioelectronics devices. His works explore the relationship between human behavior, emotion, software and machine. He tries to bring out the meaning of life through his works that are filled with his own observation and feelings toward society & environment in a humorous way. Currently, he is focusing on the fields of biology, electronics, software, and making tools for creative industrial applications. CHENG has been selected by Dutch Young Talent, and won First Prize of Taipei Digital Art Award, Quality Award of New Media of Kaohsiung Art Award, and Tung Chung Art Award.

## 吳宜暉 WU I-Yeh

1984 年生，現居住、工作於臺北。國立臺北藝術大學劇場設計學系主修舞台設計，後於英國倫敦大學金匠學院取得電腦藝術碩士學位，現為藝術家以及網路軟體應用及開發工作者。作品曾於空總臺灣當代文化實驗場 (C-LAB)、國立臺灣美術館、臺北數位藝術中心、波蘭及馬來西亞等數位藝術節展出。

Born in Taipei, Taiwan in 1984. WU graduated with a MFA in computational studio arts from Goldsmiths College, University of London. Most of WU's recent works attempt to capture individual differences in perception, as well as to rethink the possibilities of multifaceted communication between individuals and the others by means of programming, images, installations and texts.

## 在地實驗 ET@T

「在地實驗」(ET@T) 由藝術家黃文浩創立於 1995 年，觀察與發展所有具有潛力的藝術形式，並探索因數位文化而產生的不明狀態。在地實驗以客觀檢視、主動投入的雙重身分，持續延伸觸角到當代藝術各個可能的領域，積極發展成為集合理念與實作能力兼備的機構。二十餘年來，在地實驗集結多位臺灣在地的數位藝術創作者，以在地人的視角，透過不同形式與面向呈現臺灣當地特有的人事景物，思考地點與地點、地點與臺灣、臺灣與世界的多元關係。不論是數位文本、理論與各種數位文化相關的展演形式，在地實驗希望藉由完整而深入的專業知識，經由實際的創作與演練，累積出厚實的經驗與心得。

ET@T was founded by artist HUANG Wen-Hao in 1995 to explore all possible art forms and nascent states of production in digital culture. ET@T's organizational mission is to blend concept and practice in a cooperative working environment and objectively observe and reach out to various communities in the contemporary art field. For more than twenty years, ET@T has brought together Taiwanese digital artists and presented the unique characteristics of Taiwan's landscape and figures through different art forms and perspectives. A goal of the organization is to contemplate connections among places within Taiwan, Taiwan itself, and the world. ET@T hopes that its practice of comprehensively applying professional knowledge to digital texts, theories, exhibitions, and performances derived from digital culture, will result in abundant experience and learning.



## 《合生體計畫 (二)：土壤成因》 The Holobiont Project II: Factors of Soil Formation

微生物、作物、土壤、菌液、水、鋁擠、不鏽鋼、玻璃、凸透鏡、  
植物燈、馬達、風扇、管線、高濕器

Microbes, crops, soil, bacterial liquid, water, aluminum extrusion, stainless steel, glass,  
convex lens, plant growing lamp, motor, fan, cables, oscillator



2021

《合生體計畫》取自著名生物學家琳·馬古利斯 (Lynn Margulis) 於 1991 年提出的一個概念。「Holobiont」的意思為完整的生命全體 (whole unit of life)，指涉眾多生物集合所構建、共生的複合體。

生態環境所面臨的衝擊愈發嚴重，土壤退化造就的問題影響了整套生物圈的循環，如氣候變遷、糧食減產、人口遷移，以及生物多樣性的大幅降低。根據聯合國糧食及農業組織 (FAO) 發表了一篇文章：「土壤為我們做出驚人的貢獻，但是我們卻時常認為是理所當然的。它維持糧食生產，過濾我們的水，是我們藥物的來源並幫助我們應對和適應氣候變化。」因此將作品回溯到問題源頭，著重於化學肥料造成的土壤退化問題。

普遍作物採用低成本的傳統化肥，利用「鹽」類來輔助植物成長，但也間接地造就土壤退化；土壤的流失與污染、微生物活性降低以及作物更不易成長等問題。農夫因此變相施加更多的肥料，造成惡性循環。而土壤系統的平衡取決於多樣化的微生物，因此微生物在土壤與作物的關係中佔有一定的份量。

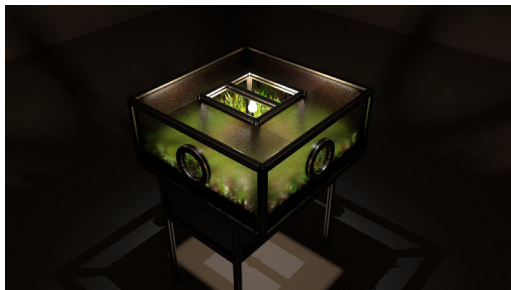
〈土壤成因〉為〈地味〉衍生作品，以土壤、微生物、土壤動物、作物、人類之間的微妙關係作為連結，並集結微生物的代謝物、作物產生的化學物質和土壤動物的各種氣息釋放出來，體現以嗅覺作為引導在土地土壤的多樣化氣味，進而透過裝置中不同面向的平面鏡與凸透鏡觀景窗，使觀者縮小視野並以不同的角度與焦距來看待整體的小生態圈。藉由體驗和觀察的同時，思考作為人類的我們，在於土壤的保存和重要性及反思整體的生態教育。

The Holobiont Project is based on a concept developed by renowned biologist Lynn MARGULIS in 1991. Holobiont means "whole unit of life," which refers to a symbiotic complex constructed by a collection of organisms.

The ecological impact on the environment is becoming more and more severe, and the problems created by soil degradation have affected the entire biosphere cycle, such as climate change, food production reduction, population migration, and the significant reduction of biodiversity. According to an article published by the Food and Agriculture Organization of the United Nations (FAO), "Soils makes an amazing contribution to us, but we often take it for granted. Theylt sustains food production, filters our water, areis our source of medicine and helps us cope withmitigate and adapt to climate change." So the work goes back to the source of the problem, focusing on the degradation of the soil caused by chemical fertilizers.

The widespread use of low-cost conventional fertilizers, which use "salts" to aid plant growth, has indirectly contributed to soil degradation: soil erosion and contamination, reduced microbial activity, and crops that are less likely to grow. As a result, farmers apply more fertilizers, creating a vicious cycle. The balance of the soil system depends on the diversity of microorganisms, which therefore play a role in the soil-crop relationship.

Factors of Soil Formation is a derivative work of Ji-Mi, probing the relationship between soil, microorganisms, soil animals, crops, and humans as a link. The installation uses olfaction as a guide to simulate the complex smell of the land, and uses a plane mirror and convex lens viewpoint on each side to observe the small ecological system. Through experiencing and observing, the viewer could rethink how we, as human beings, value the preservation of soil and reflect on the overall ecological education.



《合生體計畫：地味》 The Holobiont Project: Ji-Mi, 2021

### 江俊毅 CHIANG Chun-Yi

1992 年出生於臺灣屏東，目前就讀於國立臺灣藝術大學多媒體動畫藝術學系新媒體藝術碩士班。具有理工電子背景與媒體藝術的江俊毅，擅長軟硬體整合和跨域應用製造，並在 2019 年起於國立清華大學交流計畫期間，開始將研究導向發展生物科技結合感官中的嗅覺系統至今，內容多在探討自然生態系統下的相互關係，並期望在兩者間的訊號傳遞產生碰撞進而轉化為感受。

Born in 1992 in Pingtung, Taiwan, CHIANG Chun-Yi is currently enrolled in the Master of Fine Arts in New Media program at the Department of Multimedia Animation Arts, National Taiwan University of the Arts. With a background in electronics and media art, CHIANG Chun-Yi specializes in software and hardware integration and cross-domain application production. During his exchange program at National Tsing Hua University in 2019, he began his research on biotechnology combined with the olfactory system in the senses, mostly exploring the interrelationship between natural ecosystems and expecting the collision of signal transmission between the two to be transformed into feelings.

## 《養植聆聽者》 Homo Vegetation

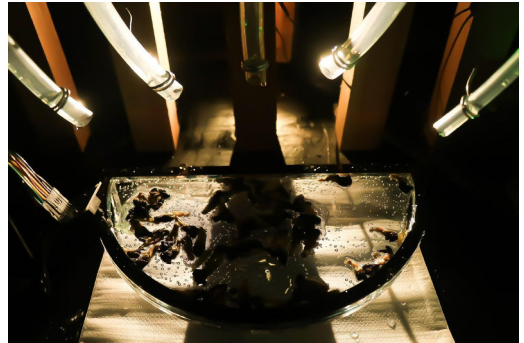
混合媒材  
Mixed media  
  
2020

在這資訊爆發的二十一世紀裡，網路的發達，網紅和直播主便是這個時代下的產物，這群人會把自己的生活上傳到虛擬空間裡，情感交流僅僅在網路上進行，漸漸將手機當成自己的全世界，在真實世界中卻不會與他人互動，就像是不會回應外在刺激的植物一樣。而有了一層螢幕的保護，網路上有一個名為「酸民」的群體，這群人帶上偽裝，恣意地用鍵盤傷害螢幕對面的一個「真實」的人，他們認為在網路上造成的傷害，終究不會影響到自己的現實生活，但對被攻擊的人們來說，這些傷害是巨大的，近年來頻傳網路評論引發人們憂鬱並走上自殺的不歸路，這個議題也越來越受關注。

In the 21st century, the information-overwhelming era, web celebrities and live streamers have become the icons of our times due to the development of the Internet. This group of people would show their own life and share emotional exchanges on the Internet, seeming that mobile phones have gradually become their whole world, which lacks physical interaction with others in the real world and makes them respond nothing to external stimuli like plants. And with a layer of screen as protection on the Internet, the group of people called "trolls," seems to wear camouflage and relentlessly harming "real" people with their keyboard on the other side of the screen. In their opinion, the harm done on the Internet, after all, will not affect one's real life. For those who are attacked on the Internet, the harm is enormous. In recent years, there has been an increasing number of people suffering from depression or committing suicide, and the issue of cyberbullying has received more and more attention.



《養植聆聽者》Homo Vegetation, 2020



《養植聆聽者》Homo Vegetation, 2020

鄒心瑀、徐立茵、何捷睿 DENG Sin-Yu, HSU Li-Han, HO Chieh-Jui

國立清華大學藝術學院學士班在學生

Currently studying at the College of Arts, National Tsing Hua University

## 《蔓·慢》 Weave Weed

小花蔓澤蘭、石膏、錄像  
Mikania micrantha, plaster, video



2019

「慢慢」，意義為容光煥發的樣子。作品取名為「蔓慢」，則是希望原先對環境有害的小花蔓澤蘭，慢慢轉變為容光煥發的樣子。

「小花蔓澤蘭」，被認定為世界百大外來入侵種之一，無論是山區、抑或是有人類駐足的地方，必定都能看到它們的蹤跡。每年十月至隔年一月為快速生長期的小花蔓澤蘭，由於強勢又生長快速，大片覆蓋其它植物的同時，更會造成被寄生植物的死亡，因此也被稱為植物殺手。每年政府都會動員大批人力將之拔除並焚化，以保護原生植物，避免小花蔓澤蘭在臺灣造成重大危害。

然而，比起焚化燒毀，或是放任他們恣意生長，創作者們更想賦予小花蔓澤蘭新生命，並且重新定義小花蔓澤蘭的存在。抱持著這個想法，遂開始這個創作計畫。

花費數個月採集小花蔓澤蘭，並使用小花蔓澤蘭的枝葉與花朵製成紙張、從莖取絲撚成大量的線，將它們編織成各種形式，並接觸了與這塊土地擁有最緊密關係的原住民，學習泰雅族傳統織布的技术，創作者們亦被他們眷念這塊土地心與實際的行動深深的打動，決定將小花蔓澤蘭結合原住民織布文化，將外來物種與在地文化做連結，讓這些理念被傳承下去。

The name of the project Weave Weed comes from the homophonous word "man man" referring to "lucency" in Mandarin. The name implies our notion of slowly transforming this environmentally harmful little flower into a radiant beautiful creature.

*Mikania micrantha* is one of the 100 of the World's Worst Invasive Alien Species and we always see it grow wildly no matter where we are. Each year from November to the coming January is the period during which it grows especially rapidly. During this period, it grows so frantically and quickly and covers other plants, shrubs and even trees, causing the death of the host plants. The government has no choice but to mobilize a huge number of people to tear it down and burn it every year.

However, instead of destroying it or doing nothing about it, this project aims to give *Mikania micrantha* a new life and redefine its usefulness.

Countless months were spent on collecting *Mikania micrantha*. Its flowers and leaves are remade into paper and its strings of the stem are turned into lots of threads. The artists learned the traditional weaving techniques from Atayal people, the people who have the most inseparable relationship with the land. The artists are deeply moved by their passion towards the land; thus, they bind *Mikania micrantha* and the weaving technique originated from Taiwanese indigenous people together as a connection between the introduced species and the local culture, they sincerely hope it will become a creative way to preserve the Taiwanese indigenous people's legacy.



《蔓·慢》 Weave Weed, 2019

### 紅貴賓∞無毛貓 (侯齋庭、楊子逸) Poodle ∞ Sphynx (HOU Chi-Ting, YANG Tzu-Yi)

「紅貴賓∞無毛貓」是國立清華大學藝術學院學士班的長期創作夥伴，侯齋庭與楊子逸於2019年成立的可愛(怪)組合。因為一堂關於生物藝術的課程，她們決定開始小花蔓澤蘭的重生創作計畫，希望透過自身微小的力量以及這個作品，讓更多人看見、重新認識小花蔓澤蘭，讓它們不再是人人口中的有害物種。同時，也將小花蔓澤蘭作為新的編織媒材，向原住民部落請教傳統的編織技術，並深入地與他們對話。以此延伸創作出更棒的研究作品，是她們對未來的期許。

HOU and YANG met as students at the Interdisciplinary Program of Technology and Art of the National Tsing Hua University. In 2019, they founded "Poodle ∞ Sphynx," an adorable (adorable) collective and have been amazing creative partners for each other ever since.

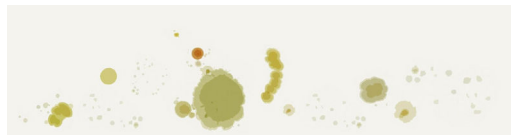
They started the project Weave Weed—a slow rebirth project of the common weed *Mikania micrantha* during a bio art course in 2019. With the idea of changing people's impression of *Mikania micrantha* through this project, they wish *Mikania micrantha* will no longer be seen as a destructive species and its value can be reconsidered. *Mikania micrantha* is used as an innovative weaving material in this project; they have learned the weaving techniques from Taiwanese indigenous people and intended to connect deeply with their community. From here, they will continue their research to further this project.

## 《快樂腳》 Happy Feet

複合媒材  
Mixed media  
2019-2020

與腳相關的疾病和問題總是帶給患者和他人很多不方便的地方。除了困擾之外，患者會覺得羞恥、非患者會覺得不舒服甚至噁心。而《快樂腳》這件作品是想要幫這樣的情況「去疾病化」。呈現一個大家都可以用和善且正向的態度去面對的氛圍。這些疾病只是身體上的特徵，就像大大的眼睛、短短的頭髮一樣，是身體外顯的一部分，擁有這些的人不需要覺得不好意思，不需要再躲藏；而面對擁有這些特徵的大眾，也能夠用欣賞和理解的角度去看待。

Foot-related diseases and disorders are often quite uncomfortable for people suffering from the problems and also those around them. Besides being bothersome, people with the problems often feel embarrassed, while others may feel awkward or even disgusted. *Happy Feet* is an artwork that seeks to remove the disease stigma associated with this kind of condition and to provide a way for people to deal with it in a kind and positive manner. These conditions are just physical features, just like big eyes or short hair; they are just a part of someone's body. People with these conditions shouldn't feel embarrassed nor do they need to hide. Moreover, when others come across those with these features, they can also see it through a perspective of appreciation and understanding.



《快樂腳》 *Happy Feet*, 2019-2020

### 侯君儀 HOU Jiun-Yi

2000年出生於臺灣臺北市，現正就讀於國立清華大學藝術學院學士班大學部三年級。

她從自身出發，透過藝術作為橋樑傳達自己對世界的看法。

每次的創作都希望帶來視覺上的衝擊或是新的概念，並期望藉由作品被瞭解的過程達到傳達以及溝通的效果。作品包含影像、裝置、聲響、設計、遊戲等。

Born in 2000 in Taipei, Taiwan, HOU Jiun-Yi is currently a junior at the College of Arts, National Tsing Hua University. Inspired by her own experiences, she uses art as a bridge to express her thoughts on the world. She hopes to incite visual impact or new ideas with each artwork she creates and to effectively convey or communicate as her art is being learned and understood. HOU's oeuvre includes images, installations, sounds, designs, and games.

## 《病毒之愛》

Virophilia

複合媒材

Mixed media



2018-2020

《病毒之愛》源於一個簡單的問題：人們是否可能以新的角度看病毒，特別是會造成傳染病的病毒？這問題有深遠的科學與歷史背景。在生物的定義中，病毒是沒有生命的。因為病毒需要藉由其他生物體的機制才能複製，無法自我複製。也因此病毒註定必須寄生在活體生物上，例如人類。當病毒借用人類細胞成為繁殖的工廠時，身體免疫系統反應，於是生病。

人類作為一種生物體，具有與其他生物相同的基本組成結構 (DNA 與 RNA、蛋白質)，我們天生就是演化的一環。我們與病毒分享許多相似的基因密碼，而對於病毒這個介於有生命與無生命之間的存在，也只發展出可以防止他們複製的藥物，而無法用抗生素殺死。而同時，不是所有病毒都是有害的。近年來逐漸發現許多對宿主有益的病毒，有些甚至對人類生存是必要而不可或缺的。

這個計畫嘗試從文化的角度，透過設計食譜、表演，來建立對於病毒新的理解方式。本次展出三個部分：以未來 50 年後的角度反觀過去 50 年病毒被使用在飲食上的紀錄食譜 (牆上框中的食譜)、所有截至 2018 年 3 月有登記名稱的病毒、病毒餐食用影像。

This project comes from a very simple question: Can we start to see the connotation of viruses differently, especially those that cause infectious diseases? The reason why such a question is being asked has a very strong historical and scientific background. In biological definition, viruses, unlike bacteria, are not considered as "living." It is due to the fact that viruses themselves are not equipped with essential components that can facilitate their replication. In other words, viruses cannot replicate themselves. They are doomed to be the "parasites" on living creatures, and humans are one of them. When viruses borrow our cells as their replication factories, our body system becomes unstable, our body immune system reacts, and at the macro scale we get sick, though the interaction is much more sophisticated than how we commonly understand.

The biological world is vast and evolving. We as one of the biological habitants that share the same basic building blocks with other living and semi-living things, we are born to be included in the cycle of evolutions. We share the same genetic codes with viruses, and for their semi-living status, we have not yet developed a medicine to kill them but only merely stop them from further replicating. At the same time, not all viruses are pathogens. New discoveries of beneficial viruses are starting to reveal, some are even crucial for our survival. The number of viruses surrounding us also vastly outnumber what we have known now. To make it short, humans and viruses depend on the existence of each other. Evolution is a non-stopping competition and collaboration.

This project is to investigate the possibilities of human-virus encounter in the realm of culture through different facilitation of events, performances, and materiality to build up new discourse and sensible understandings.



《病毒之愛》 Virophilia, 2018-2020

### 林沛瑩 LIN Pei-Ying

臺灣藝術家與設計師，現居荷蘭安荷芬。主要創作方向為透過藝術方法探索科學與人類社會結合的各種可能性，尋找讓大眾討論建構不同文化與個人觀點元素的基底。最近的研究主題為玩弄可見／不可見、有生命／無生命之間的界線，並尋找探索這個界限的工具與方法。曾得到 STARTS Prize 2020 年榮譽獎、Ars Electronica 2015 年 Hybrid Arts 類別榮譽獎、2016 年 BioArt and Design Award、2015 年 Core 77 設計獎 Speculative Concepts 專業組第二名，並曾於 CERN 駐村、2017 荷蘭阿姆斯特丹藝術基金會 3 Package Deal 駐村。作品《植物性顧問公司》為斯洛維尼亞建築與設計博物館永久收藏。

LIN Pei-Ying is an artist/designer from Taiwan and currently based in Eindhoven, the Netherlands. Her main focus is on the combination of science and human society through artistic methods, and she is particularly interested in building a common discussion ground for different cultural perspectives regarding elements that construct our individual perception of the world. Recently she has been focusing on manipulating the boundary of invisible/visible, living/non-living and finding ways to build tools and methods that facilitate such explorations. She has won the Honorary Mention of STARTS Prize 2020, Honorary Mention of Ars Electronica 2015, Core 77 Awards 2015, BioArt and Design Award 2016.

## 《紫待》 qpHesitation

複合媒材  
Mixed media  
2019-

中國南方有為新生嬰兒釀造花雕酒的傳統習俗，名為「狀元紅」、「女兒紅」，在兒子或女兒成年或婚宴上飲用，藉此期許兒童未來高中狀元或嫁入好人家。因紫色是酷兒(queer)運動中常用的代表色，本計畫以Keppler-Ross等人於2008年發表在Genetics期刊上的基因改造紫色螢光酵母菌為基礎，參考狀元紅和女兒紅的釀造方法，加入代表酷兒的紫羅蘭和薰衣草，研發以紫米發酵釀製螢光紫色的「紫待」酒，諧音「子代」，並另外邀請童書畫家曹益欣搭配童書風格插畫，搭配新成語例如「釀紫以待」、「暗櫃懷麟」、「出櫃逢春」等，構築一個新的傳說，回應和補充童話故事中酷兒孩童角色的匱乏，以及缺乏酷兒家庭行為榜樣(role model)的現況。另又依尋q(ueer) p(purple)二字，衍生英文新字頭qp [kwip]\* 用於標記酷兒脈絡下的詞彙，以聚光在主流社會的描寫與文化中酷兒們慣常的(被)不存在。

A tradition is practiced in Southern China whereby rice wine is brewed upon the birth of a baby. The alcoholic spirit, "Zhuang Yuan Hong" ("Scholar Red") or "Nu'er Hong" ("Daughter Red"), is a gesture of well wishes for the child to grow up and become an esteemed scholar or to marry into a good family, and would be drunk on the son or daughter's wedding day. Purple is a symbolic color that is commonly used in queer movements. This project uses a genetically modified purple fluorescent yeast published in Genetics by Sabine KEPPLER-ROSS and others in 2008 and references the brewing method of "Scholar Red" or "Daughter Red." Violet and lavender are also added for their symbolic purple hue, and purple rice is used in the fermentation process to result in the fluorescent purple spirit, qpHesitation. With illustrations by children's book illustrator, TSAO Yi Hsin, incorporated, new Chinese idioms referencing queer experiences are also created, with a new tradition constructed to respond to or supplement the lack of queer characters in children's stories and of role models for queer families. An English acronym, qp [kwip], is created by combing the first two letters from the words, "queer" and "purple," which is used to indicate vocabularies under the queer context, with the objective of bringing to light how queers are often overlooked in mainstream portrayals and cultures.



《紫待》qpHesitation, 2019 ~

## 理貓換 transpossum

自澳洲昆士蘭理工大學熱帶作物研究群組(現納入未來環境研究所)博士畢業後，於2009年至2018年間，先後在中研院農生中心，臺大資工所與生化所、臺大醫院精神醫學部與基因醫學部等處，從事基因工程、分子生物學、次世代定序與轉錄體學的科學研究，現任教於國立清華大學，為國立清華大學生物藝術實驗室負責人。近年藝術作品《慶生學》、《有我在™》、《血電廠》、《療劑》、《愛@窒息》中，使用生物科技、(類)醫療行為、活體材料等，討論科學局限以及感知的可曲變性。

transpossum tries to use science as a creative foundation and to use the art for expanding the possibilities of science. Before joining NTHU, she did her PhD in the Queensland University of Technology and has been a postdoc for many years at National Taiwan University and National Taiwan University Hospital, expertizes in genetic engineering, gene therapy, genomics and next-generation sequencing. Since 2019, she runs the BioArt Laboratory in the College of Arts, National Tsing Hua University (NTHU) of Taiwan. Her works *Needle Therapy*, *Blood Power Station*, *HEREIAM™* and *EdiGenics* applied medical(-like) procedures, biotechniques, and genetic engineering to explore the distortion of perception and the limitation of the technology.

插畫：曹益欣  
音響指導：黃大旺  
空間指導：蔡猶惠  
演員：蔡猶惠、張讚米、黃大旺等

Illustrator: TSAO Yi Hsin  
Sound Supervisor: HUANG Dawang  
Space Supervisor: GE Chang Hwei  
Actors: GE Chang Hwei, Jimi ZHANG, HUANG Dawang, etc.



《藏莉塔》 Lolita, 2015

## 相關活動 Events

### 講座 / Talk

社會設計的隱藏關卡 | 唐鳳、李柏廷、邱誌勇 (主持)

Hidden Challenges of Social Design

Audrey TANG, LEE Po-Tin, Chih-Yung Aaron CHIU (Moderator)

3/17 (Wed.) 17:30-19:00

地點：西服務中心 2 樓

Venue: West i-CENTER, 2F

### 工作坊 /Workshop

絨毛遍體工作坊 | 江俊毅

Plush All Over the Body | CHIANG Chun-Yi

4/11 (Sun.) 09:30-16:30

地點：CREATORS 空間 102 共享吧

Venue: CREATORS' Space R102 Coworking Space

機器學習創作應用工作坊 | 鄭先喻

Machine Learning for Creativity Projects | CHENG Hsien-Yu

4/17 (Sat.) 14:00-17:00

地點：CREATORS 空間 102 共享吧

Venue: CREATORS' Space R102 Coworking Space

### 專家導覽 / Expert Guided Tour

3/27 (Sat.) 14:00-15:00

地點：西服務中心集合

導覽人：邱誌勇

Meeting point: West i-CENTER, 1F

Guide: Curator Chih-Yung Aaron CHIU

5/8 (Sat.) 14:00-15:00

地點：西服務中心集合

導覽人：林映彤

Meeting point: West i-CENTER, 1F

Guide: Professor LIN Ying-Tung

主辦單位保有因應疫情狀況調整與變更活動之權利，最新活動消息請參閱 C-LAB 官網。

Due to the spread of COVID-19, the organizer reserves the right to change, adjust or cancel the events at any time. Please visit the official website of C-LAB for the latest information about the Event Series.



## 關於臺灣當代文化實驗場 About Taiwan Contemporary Culture Lab (C-LAB)

臺灣當代文化實驗場 (C-LAB) 於 2018 年開始啟動規劃，由文化部所屬「財團法人臺灣生活美學基金會」負責執行，以「創新」為核心理念與行動指標，形塑臺灣最重要的當代文化培養皿。旨在打造一個面向未來的創新實驗基地對外推動臺灣與國際的對話鏈結，激發從臺灣和亞洲生活經驗出發的當代文化想像；對內作為創意育成的實體基地，期待能讓不同創意在此互動激盪，營造開放包容的文化生態和社會環境。

C-LAB 以舊空軍總司令部為基地，前身經歷日治時期的臺灣總督府工業研究所、臺灣省政府之工業試驗所大安所，1949 年改為中華民國國防部空軍總司令部等不同身份。C-LAB 此刻正配合公共建設階段性計畫，盤點園區建物並活化可用空間，開放文化專業人士與科技支援團隊進駐，推動跨領域與跨學科的協作與共創。期能透過藝術文化創新實驗、展演發表表、跨域協作共創、國際文化交流、教育推廣、社區服務等多樣化計畫和活動，以及創新實驗基地、新型態藝文機構群落、都市美學公園等多元化功能和設施，構建未來社會文化願景的實驗和實踐場域。

Taiwan Contemporary Culture Lab (C-LAB) was initiated in 2018 by the Taiwan Living Arts Foundation of the Ministry of Culture, to the aim of becoming the leading site of contemporary culture in Taiwan, with "innovation" as its core belief and directive. It is a vision for future experimentation and a nexus for international exchange, an imagining of a culture rooted in Asian and Taiwanese everyday experiences. Domestically, it serves as a physical incubation center for creative endeavors. The hope is to catalyze the interplay between all forms of creativity while developing an open and inclusive cultural landscape or social environment.

C-LAB is located at the site of the former Air Force Command Headquarters, which occupied the site of the Taiwan provincial government's Central Research Institute at Da'an, which in turn took over from the original Japanese-era Industrial Research Institute of the Taiwan Governor-General's Office. The site became the Ministry of National Defense's (MND's) Air Force Command Headquarters in 1949, among other subsequent identities. C-LAB is working in the public construction planning phase to carry out inventory of campus properties and revitalize usable space, opening up the site to cultural professionals and technical support teams who together participate in cross-disciplinary or interdisciplinary collaboration and co-creation. Through programs such as artistic cultural innovation experimentation, exhibitions, performances, screening events, cross-domain co-creation, international cultural exchange, educational promotion, and community service, as well as the establishment of innovative experimentation, new art and culture co-habitats, urban aesthetic parks, and other multi-purpose facilities, we are building on a vision for continued socio-cultural experimentation and practice.

## 虛幻生命：混種、轉殖與創生

展期 | 2021 年 3 月 13 日 (六) - 05 月 23 日 (日)

地點 | 臺灣當代文化實驗場圖書館展演空間一、二樓

開放時間 | 週一至週日 11:00-18:00，週一休館

\* 若遇連假假期，參訪前請至 C-LAB 官網查詢開放時間

策展人 | 邱誌勇

展覽統籌 | 吳伯山、廖苑瑜

展覽行政統籌 | 顏憶婷

技術統籌 | 蔡奇宏

推廣活動 | 孫永貞

翻譯 | 官妍廷、黃亮融、廖蕙芬

視覺設計 | 邱麗民

展覽手冊設計 | 林羅伯

作品影像字幕 | 黃柏瑜

展場設計 | 林冠名

技術整合執行 | 朱家聖

展場施作 | 華宮工程有限公司、泰多室內裝修設計工程行

藝術品運輸 | 杰熙藝術工程有限公司

攝影紀錄 | 林科呈、陳佩慈

錄影紀錄 | 陝大大國際影業有限公司

行銷宣傳 | 劉郁菁、黃怡翔、高愷瑛、洪凱歐、黃孟琦、高慧倩

場地協力 | 林志鳴、吳宜臻、李後奇、蔡承杰、林其蔚

行政協力 | 陳國政、王雲玉、許紡菱、林雅君、余孟菱、楊佳錚

特別感謝 | 賴香伶、陳品伊、蔣孟涵、蔡宏賢

## Fictional Life: Hybridity, Transgenetics, Innovation

Date | March 13, 2021 - May 23, 2021

Venue | Taiwan Contemporary Culture Lab - Art Space II, 1F - 2F

Opening Hours | 11:00-18:00, Tuesday - Sunday

\*During national holidays, please visit C-LAB official website for the opening hour before your visit.

Curator | Chih-Yung Aaron CHIU

Exhibition Manager | WU Poshan, Emma LIAO

Exhibition Administration Coordinator | Lucy YEN

Technical Coordinator | TSAI Chi-Hung

Education Programmer | SUN Yung-Chen

Translator | KUAN Yen-Ting, Hui-Fen Anna LIAO, Liang-Jung Alex HUANG

Graphic Designer | CHIU Hsi-Ming

Brochure Designer | Robert LIN

Artwork Video Subtitle | HUANG Po-Yu

Exhibition Designer | LIN Guan-Ming

Technical Planning and Execution | Jason JU

Construction | Hua Kung Engineering Co. Ltd., Tai Duo Interior Design and Decoration Company

Artwork Shipping | JC Art Engineering Co., Ltd.

Photography | LIN Ko-Cheng, CHEN Pei-Tzu

Video | Big Big Chen International Film

Media Coordinator | LIU Yu-Ching, HUANG Yi-Hsiang, KAO Kai-Pei, HUNG Kai-Hsin, HUANG Meng-Chi, GAO Hui-Guan

Site Coordination | LIN Jih-Ming, WU Yi-Zhen, LEE Hou-Ci, TSAI Cheng-Chieh, LIN Chi-Wei

Administration | CHEN Kuo-Cheng, WANG Yun-Yuh, HSU Fang-Wen, LIN Ya-Chun, YU Meng-Ling, YANG Chia-Cheng

Special thanks to LAI Hsiang-Ling, CHEN Ping-Yi, Monique CHIANG, Escher TSAI



指導單位 Supervisor



主辦單位 Organizer



協辦單位 Co-organizer

