

文獻題目： LIGHT BARRIER 3RD EDITION

文獻作者： MIMI SON, ELLIOT WOODS

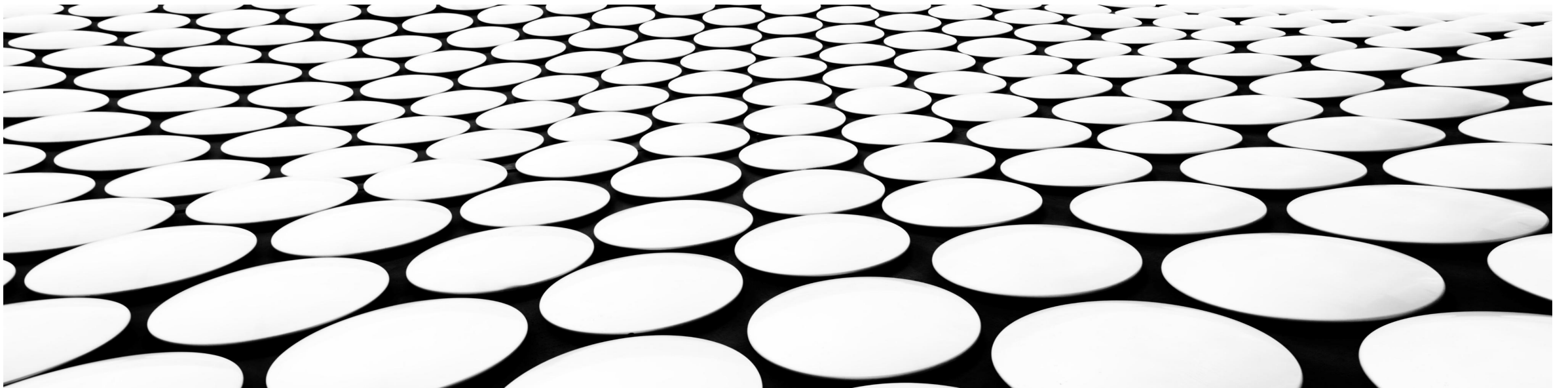
文獻來源： ARS ELECTRONICA FESTIVAL 2017

文獻網址： [HTTP://ARCHIVE.AEC.AT/PRIX/SHOWMODE/55667/](http://archive.aec.at/prix/showmode/55667/)

報告者： 孟昕

指導教授： 許素朱

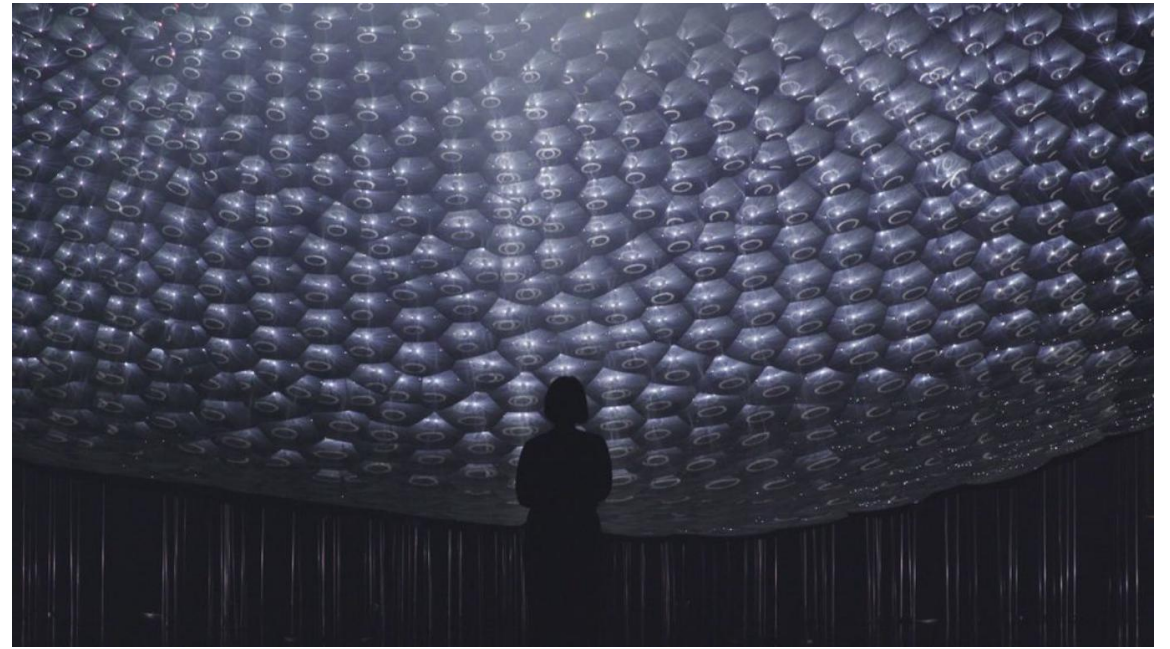
報告時間： 2020.03.17



A large, glowing, spherical light installation made of many small lights, with a person's silhouette in the foreground. The installation is composed of numerous small, bright lights arranged in a dense, roughly spherical pattern. The lights are illuminated from above, creating a bright, hazy glow around the top of the sphere. The background is dark, and the overall atmosphere is mysterious and artistic.

LIGHT
BARRIER
光障



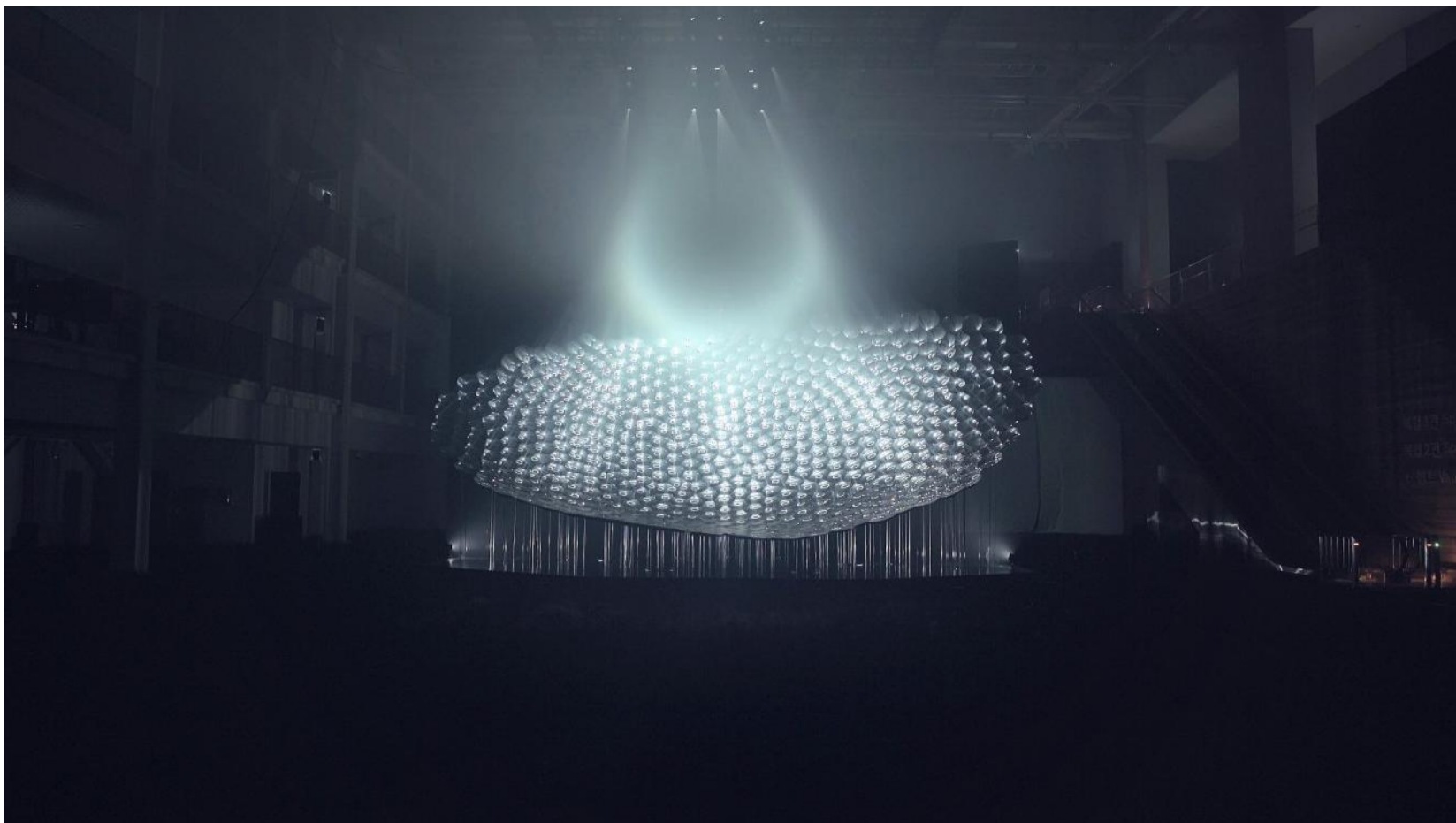


作品論述 (ART STATEMENT)

The Light Barrier series by studio Kimchi and Chips creates volumetric drawings in the air using hundreds of calibrated video projections. These light projections merge in a field of fog to create graphic objects that animate through physical space as they do in time.

KIMCHI AND CHIPS工作室的“光障”系列利用**數百個校準過的視頻投影機**，在空中繪製出体积感的圖形。

这些光的投影**在雾域中合并**，進行圖形的創造，它們会随着时间的推移在物理空间中进行**動畫**一樣的处理。



The installations present a semi-material mode of existence, materializing objects from light. The third edition continues to exploit the confusion and non-conformities at the boundary between materials and non-materials, reality and illusion, and existence and absence. The viewer is presented with a surreal vision that advances the human instinct of duration and space. The name refers to the light barrier in relativistic physics, which separates things that are material from things that are light, and since 1983 has been used to specify the exact meaning of the metric system of spatial measure.

這些裝置呈現出一種**半物質**的存在方式，通過光將客觀實現。第三版繼續探索物質與非物質，現實與幻覺以及存在與缺失之間邊界上的困惑與不整合。

觀眾看到的是一種**超現實的視覺**，這種視覺效果提高了人類對持續時間和空間的直覺。

作品的名稱是指相對論物理學中的“**光障**”，它將物質和光分開，自1983年以來，它一直被用來指定空間測量公制的確切含義。



The 6-minute sequence employs the motif of the circle to travel through themes of birth, death, and rebirth, helping shift the audience into the new mode of existence.

The artists use the circle often in their works to evoke the fundamentals of materials and the external connection between life and death.

The artists are interested in how impressionist painters were inspired by the introduction of photography to create 'viewer-less images'.

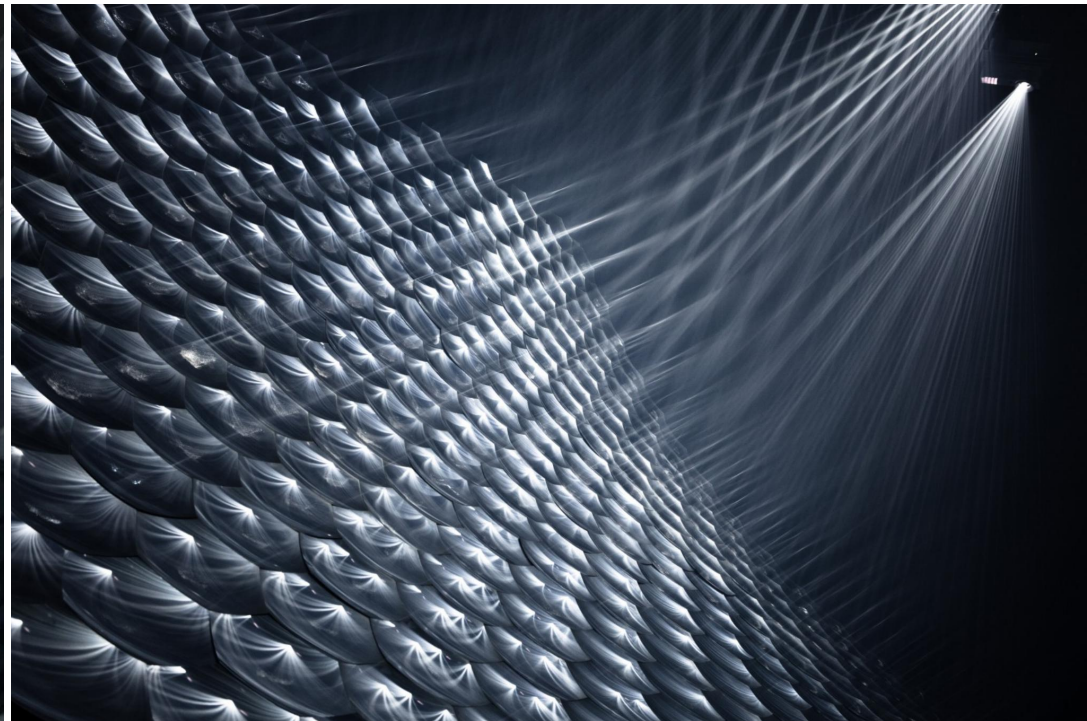
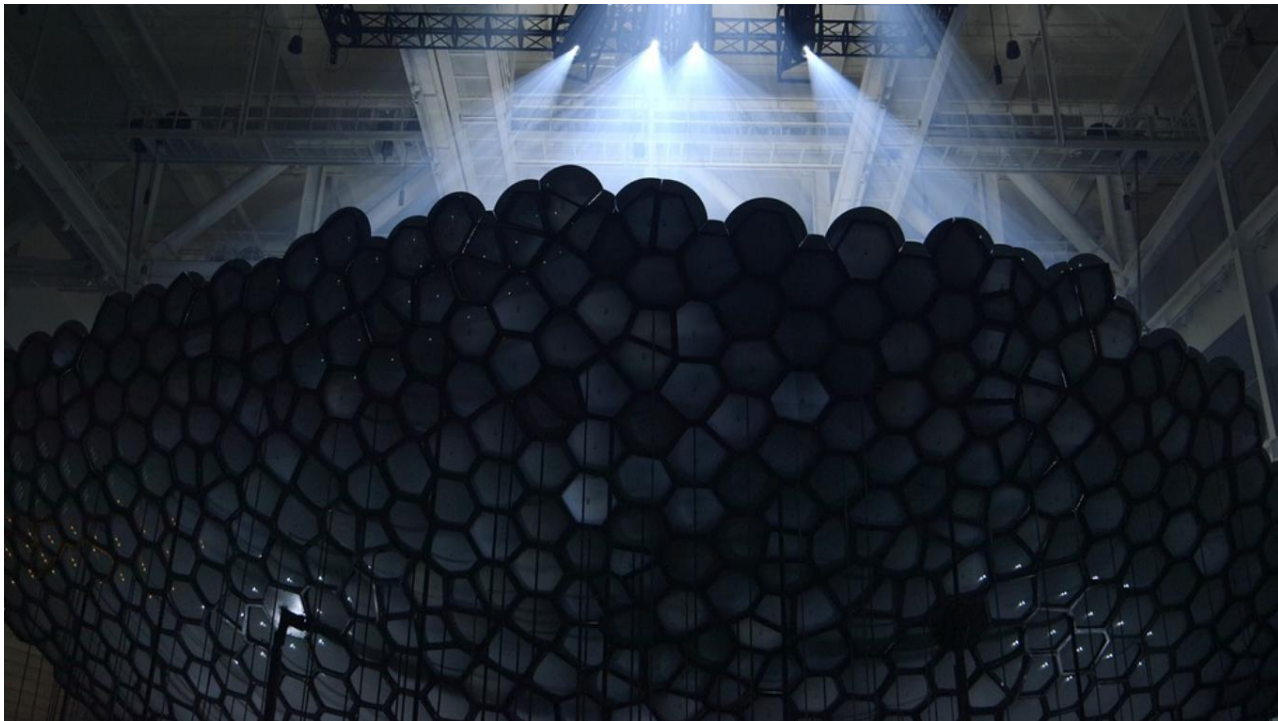
The installation allows images to arise from the canvas, creating painting outside of perspective. It is a direct approach to the artists' theme of 'drawing in the air'.

6分鐘的序列以圓圈為主題，貫穿出生，死亡和重生的主題，幫助觀眾轉變為新的生存方式。

藝術家經常在作品中使用圓圈來喚起材料的基本調以及生與死之間的外在聯繫。

藝術家們感興趣的是**印象派畫家**是如何受到攝影技術的啟發而創作出“無觀賞者的圖像”的。

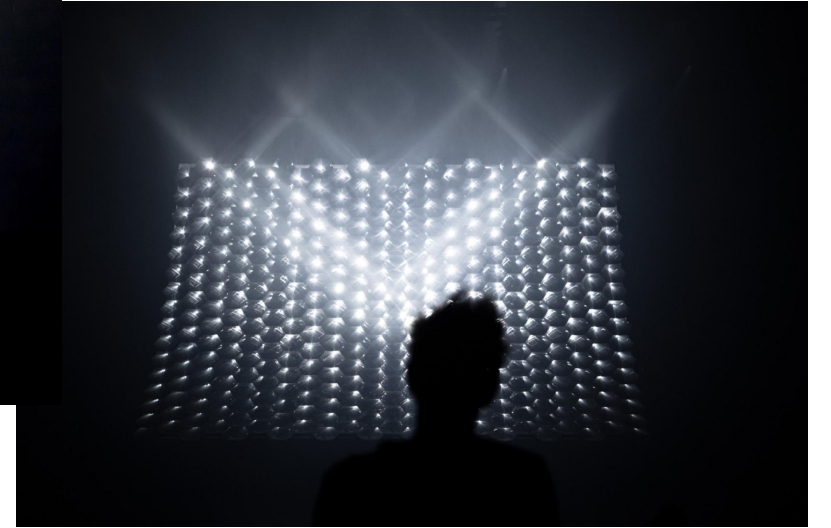
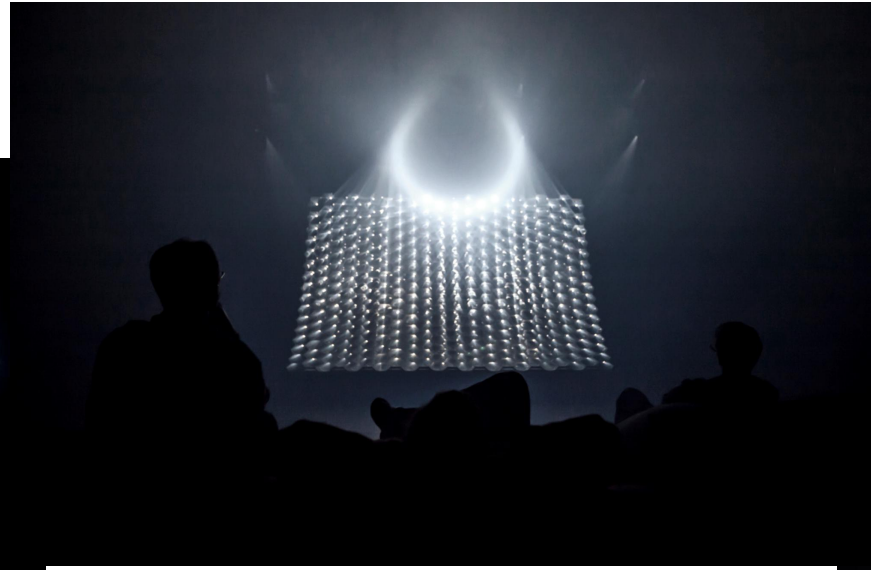
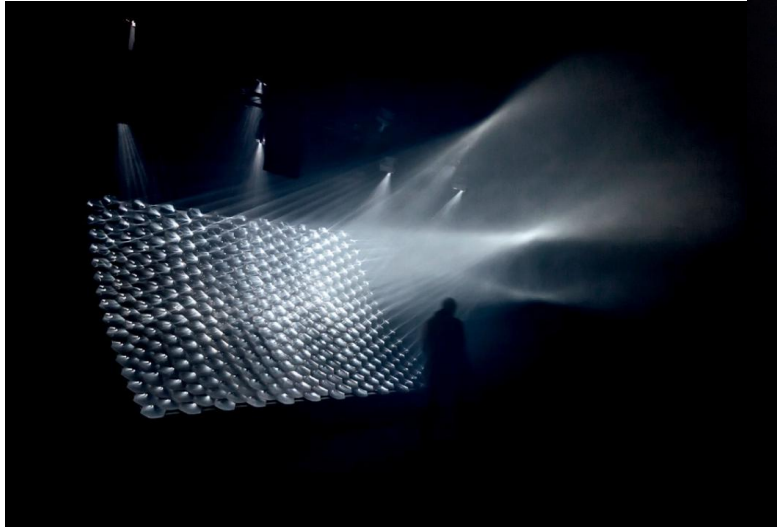
該裝置允許圖像從畫布上產生，從而在透視之外創作繪畫。這是對藝術家“**空中繪畫**”這一主題的直接表達。



In this third edition, 8 architectural video projectors are split into 630 sub-projectors using an apparatus of concave mirrors designed by artificial nature. Each mirror and its backing structure are computationally generated to create a group that collaborates to form the single image in the air. By measuring the path of each of the 16,000,000 pixel beams individually, light beams can be calibrated to merge in the haze to draw in the air. 40 channels of audio are then used to build a field of sound that solidifies the projected phenomena in the audience's senses.

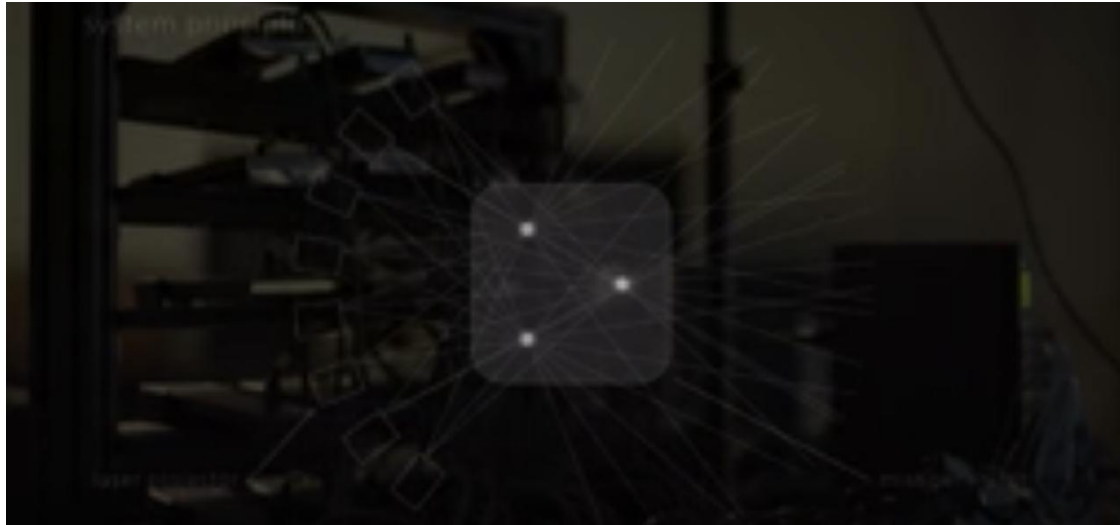
在第三版中，利用通過人工設計的**凹面鏡**設備將**8臺建築視頻投影儀**分為**630個子投影儀**。每一面凹透鏡和它的背部結構都是通過**計算生成**的，以便創建一組在空中通過相互協作所能形成的單獨圖像。

通過分別測量1600萬像素光束的路徑，可以校準光束合併到霧氣中，以便在半空中作畫。然後使用40個聲道來建立一個聲場，以鞏固觀者對投影的感覺。

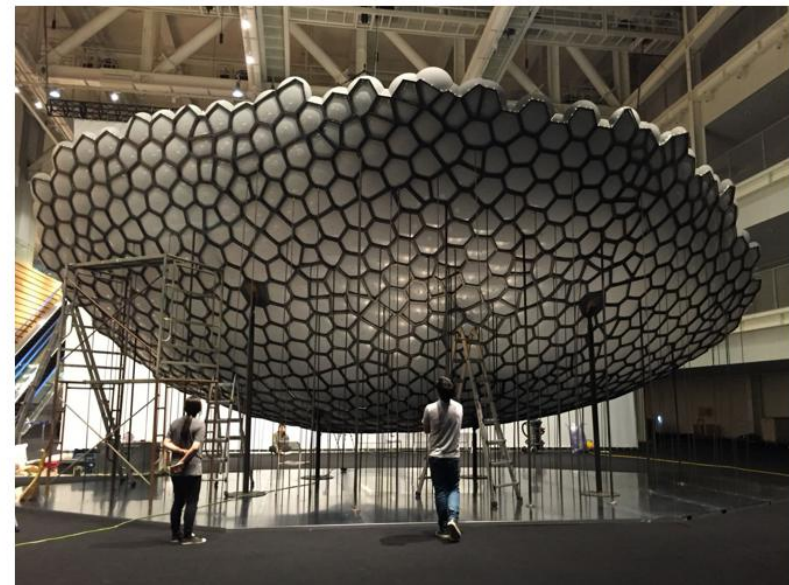
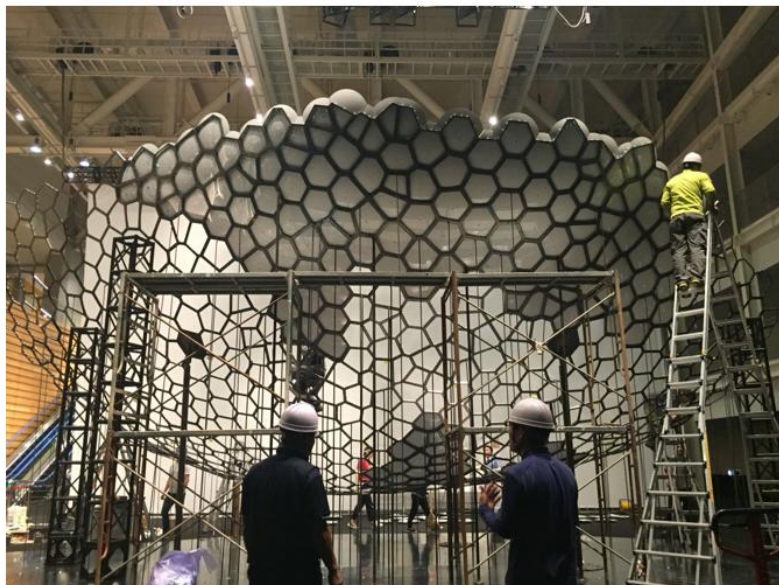


The third edition of Light Barrier was commissioned by the Asia Culture Center in Gwangju. The technology is enabled by Rulr, an open source graphical toolkit for calibrating spatial devices, created by Kimchi and Chips.

第三版《光障》是受韓國光州 **亞洲文化中心ACC** 委託 ;與ACT (藝術與創意技術中心) 合作
技術由KIMCHI和CHIPS創建的RULR (一種用於校準空間設備的開源圖形工具包) 提供。



作品原理



Installing

About a lot of the themes that are running through our work which is connection between materiality and materiality and physicality and virtuality and concretely this idea of drawing in the air to create image which has no cameras .

So the basic principle of this is we add up many themes of light into the earth and as they can demonstrate they form this point and it can create one point of light in the air then we can create a drawing by adding those points together and some mist which highlights the image and here in the second edition we can see this apparatus of mirrors which brings those beams of light together. so using video projectors at the top and these curved mirrors were able to direct the light to where in the space .the drawing in the air is about trying to create images which are outside of the traditional forms of image with an artistic practice but also to try to redefine what viewing is what does it mean to view an image when you have these different constraints we have different perspective .

关于我们的工作贯穿着许多主题，这些主题是实体与实体，实体与虚拟之间的联系。

在第二版中，我们可以看到这种镜子装置将这些光束聚集在一起。因此，使用顶部的视频投影仪和弯曲的镜子可以将光线引导到空间中的位置。

空气中的绘画,指在通过艺术实践尝试创建超出传统图像形式的画面。

我們在嘗試與重新定義這個概念.

作者介紹 (AUTHORS)

BIOGRAFIE

MIMI SON (KR) WAS BORN AND WORKS IN SEOUL. IN HER CHILDHOOD SHE WAS FASCINATED BY HER FATHER'S PAINTING AND MUSIC THAT LED HER INTO EXPERIMENTING WITH MATERIALS AND DRAWING. AN OBSESSION WITH GEOMETRY AND BUDDHIST PHILOSOPHY INSPIRES HER TO ARTICULATE SPACE AND TIME FROM ALTERNATIVE PERSPECTIVES. THESE CONTINUOUS EXPERIMENTS AIM TO DEPICT AN INTERSECTION OF MATERIAL AND IMMATERIAL, REAL AND VIRTUAL, PRESENCE AND ABSENCE.

ELLIOT WOODS (UK) IS A DIGITAL MEDIA ARTIST FROM MANCHESTER. HE TESTS POSSIBLE FUTURES BETWEEN HUMANS AND VISUAL DESIGN TECHNOLOGIES (E.G. CAMERAS, PROJECTORS, COMPUTATION). TOWARDS THIS GOAL, ELLIOT CO-FOUNDED KIMCHI AND CHIPS, AN EXPERIMENTAL ART STUDIO BASED IN SEOUL WITH MIMI SON. HE APPLIES HIS ACADEMIC STUDIES IN PHYSICS TO PRODUCE SENSE-ABLE PHENOMENA FROM ABSTRACT SYSTEMS.

藝術家:泡菜和薯條(MIMI SON和ELLIOT WOODS)

MIMI SON (韓)出生並在首爾工作。在過去的十年中，她曾在多個國家和機構擔任設計師、教授、故事講述者、策展人和藝術總監。在她的童年，她著迷於她父親的繪畫和音樂，這使她開始嘗試材料和繪畫。對幾何學和佛教哲學的癡迷激發了她從不同的角度來表達空間和時間。這些連續的實驗旨在描述物質與非物質、真實與虛擬、存在與不存在的交集。

ELLIOT WOODS(英)是來自曼徹斯特的數字媒體藝術家。畢業於物理與天文學院，獲得碩士學位。他測試了人類和視覺設計技術之間可能的未來(如照相機、投影儀、計算)。為了實現這個目標，和MIMI SON共同創立了位於首爾的實驗藝術工作室“泡菜和薯條”(KIMCHI AND CHIPS)。他運用他在物理學方面的學術研究，從抽象的系統中產生有意義的現象。ELLIOT免費發布了100多個開源庫。

KIMCHI and CHIPS studio is a Seoul based art studio founded in 2009 by Mimi Son (KR) and Elliot Woods (EN). Their practice begins at the recognition that the arts, sciences and philosophy are not distant disciplines which must be bridged, but act as alternative maps onto the same territory, and that employing these maps in tandem allows the territory to be navigated more readily.

Their installation series ‘Drawing in the Air’ was a study of mass and space-time. It brought together the relativistic mechanics of Einstein, the duration oriented philosophy of Buddhism and the divide between reality and images which has escalated to a dilemma within contemporary western politics. This series culminated in the public artwork Halo at Somerset House which brought the sun down to earth in a heady alchemy of technology and nature. 99 robotic mirrors reflected sunlight into a cloud of water during the height of summer to create drawings out of sunlight under the chaotic control of the weather and Copernican dynamics.

Their research-based approach has caused them to give the ‘first word’ on a number of artistic formats both conceptually and in execution - specifically within the fields of volumetric images in fog and 3D projection onto non-designed forms. Consequently, they became the first Korean artists to win the Award of Distinction at Ars Electronica signifying their importance within the field of media art. By releasing their techniques online as over 100 open source code libraries, countless other practitioners have adopted the studio’s understanding and incorporated it into their own work.

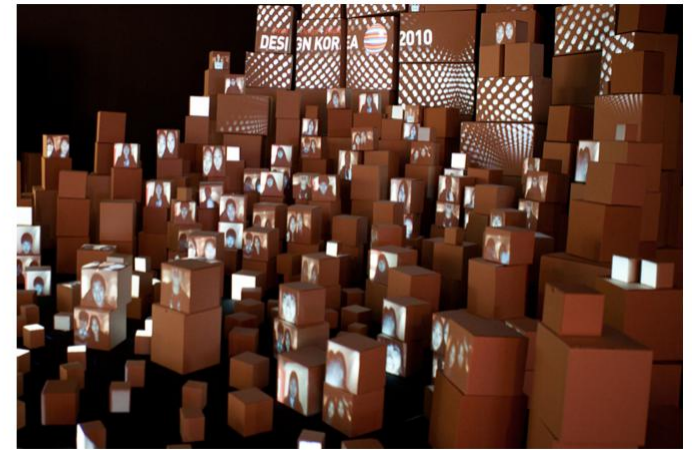
泡菜和薯條工作室 2009年創立。

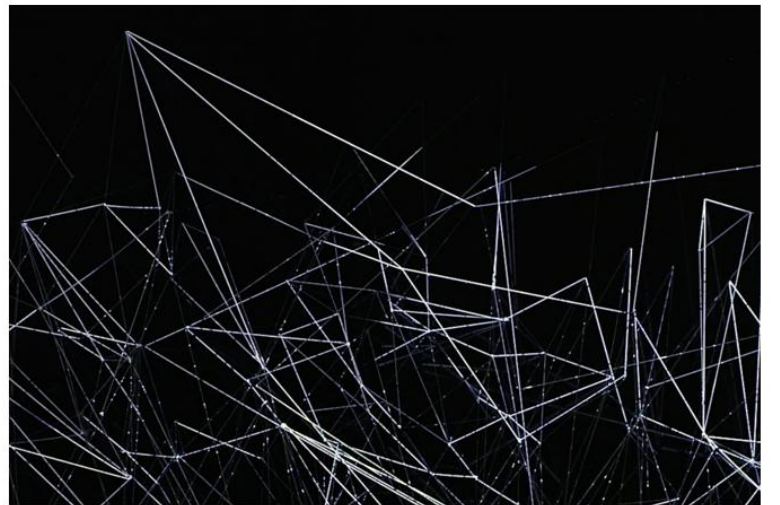
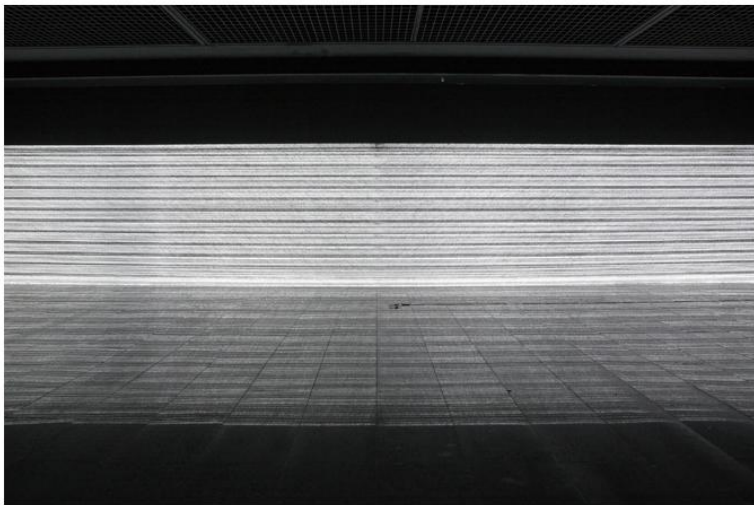
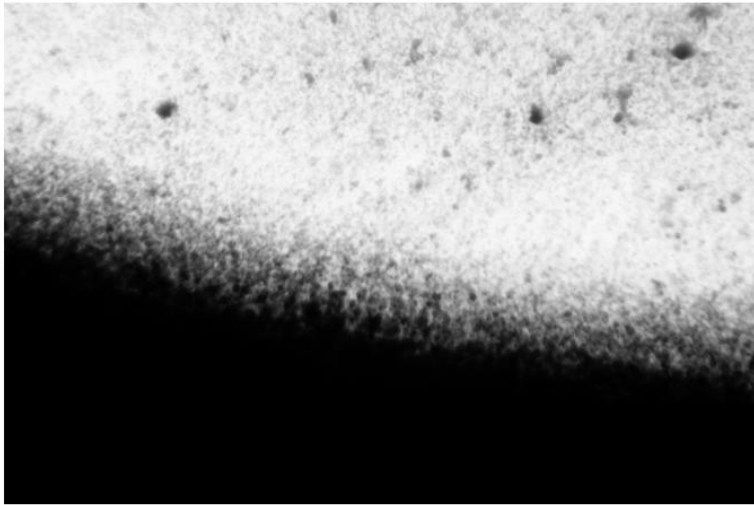
他們的實踐是對藝術、科學和哲學的一種綜合的認識。他們的作品彙集了愛因斯坦的相對論力學，佛教哲學與當代西方政治。

倫敦公共藝術作品《光暈》使他們的這種理念得到升華：99個機器人鏡子在盛夏將陽光反射到水雲中，在天氣和哥白尼動力學的混亂控制下，從陽光中創造出圖畫。

他們基於研究的方法使他們在概念上和執行上對許多藝術格式給出了“第一個詞”，特別是在霧中的體積圖像和非設計形式的3D投影領域。

他們把超過100個開放源代碼庫在網上發佈，共用自己的技術經驗。





作品相關：

■ ACC

韓國光州 亞洲文化中心（Asia Culture Center : ACC）

ACC是一個非營利性的國際性藝術與文化相交流的機構。2015年成立。隸屬於韓國文化體育觀光局。以亞洲為中心，來自全世界各個地區的參與者，在這裏進行著研究—創造—製作。是一個綜合性的交流平臺。ACC裏收集的研究成果與各種資源，面向大眾，對所有的成果，進行第二次的各種不同性質的專案開發，涵蓋於展示，公演，教育，慶典等各個文化藝術產業方面。



■ 光障

相對論指出,宇宙中的物質運動速度不能超過光速,就是不能超過光這個屏障。光障是無法突破的。

■ 凹面鏡

凹面鏡的原理是**反射成像**。凸透鏡則是折射成像,凹面鏡起**聚光作用**

凹面鏡不僅可以使平行光線會聚於焦點,還能使焦點發出的光線反射成平行光。

■ 印象派

受光學理論與攝影實踐的啟發

畫家對光的不確定性,表現在作品中

《日出印象》莫奈想要抓住每秒光的變化,卻發現,日出之光是模糊不確定的,朦朧不清晰的物體輪廓。

光是視覺的迷離,也是心裡上的感官記憶。

個人感受

空靈。

看似原理簡單，但是操作繁瑣。

賦予了非常到位的哲學，物理，繪畫的理論認識基礎，在作品論述中討論**物與非物質命題**讓作品上升了高度。

大型空間作品適合簡潔的風格與元素，效果直接且有視覺衝擊力。

THANK YOU

