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SPACE

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TURN ON
THE BLACK MIRROR,
THE POWER OF
CREATIVE PRACTICES

PURSUING
FAMILIARITY:
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Art has changed. The art realm now goes beyond white cube space, and the appearance of concepts such as a 'museum without walls' and the 'Black Box' implies that not only the characteristics of art and but also the means and essence of its existence have also changed. The ACT Festival, held at the ACC Creation from the 25-28 November organized the exhibitions, workshops, lectures, performances, panel discussion and screenings, in order to reveal the nature of art today. A number of renowned media artists shared their skills at workshops and then presented their latest performance artworks. One performance disappeared as if it wasn't there at all, as a void space with blank screens. Just once in a place it cannot be represented as it was; the synesthetic experiences consist of motion, light and sound. Those elements are realised by synthesizer, C++, 3D mapping and 3D printer which are the critical tools for media artists. *SPACE* sets the ACT Festival as a starting point and tries to consider how their experiments could be translated into reality. The black mirror, which reflects the hidden side of our post-digital age, means that the screens have been turned off. How do creative practices draw on this? It's time to turn on the black mirror.

edited by **Woo Hyunjung** | designed by **Lee Noeul** | photographed by **Jung Kwangsik** (unless otherwise indicated)

미술이 달라졌다. 회화 작품을 감상하는 화이트 큐브의 전형성을 넘어 미술은 영역을 확장한다. 벽 없는 미술관이나 블랙박스의 대두는 미술의 성격뿐만 아니라 존재 방식과 본질 자체가 바뀌고 있음을 시사한다. 미디어아티스트들은 작품의 직접적인 소스가 되는 자신만의 노하우를 워크숍을 통해 공개하고, 전시된 작품과 연장선에 있는 퍼포먼스가 전시공간 내에서 펼쳐졌다 사라진다. 작품에 전원이 들어오지 않을 때, 작가가 퍼포먼스를 시연하지 않을 때 그곳엔 텅 빈 스크린만이 놓여 있다. 단 한 번의 이벤트는 다시 재현되지 않는다. 예술의 경험은 공감각적이며 이를 구성하는 재료는 움직임, 빛, 소리로써 전통적인 개념과는 전혀 다른 차원으로 진입하였다. 전자기적 구성 요소를 예술로 만들어주는 것은 작가들이 개발한 오픈소스 소프트웨어와 기존의 신시사이저, 3D 프린터, 드론이 결합하는 제작 방식에 있다. 이번 기획에서는 뉴미디어아트의 언어와 재료를 재가공하는 예술가들의 실험이 어떻게 경험으로 실체화되는지 알아보고 그 안에서 떠오르는 질문을 개진하는 시간을 가져본다. 불이 꺼진 전자 기기의 화면을 뜻하는 검은 거울은 미디어의 어두운 이면을 상징해왔다. 경험의 예술을 만드는 기술은 이 거울에 어떤 상을 그려 넣을 것인가? 이제 검은 거울을 켤 시간이다.
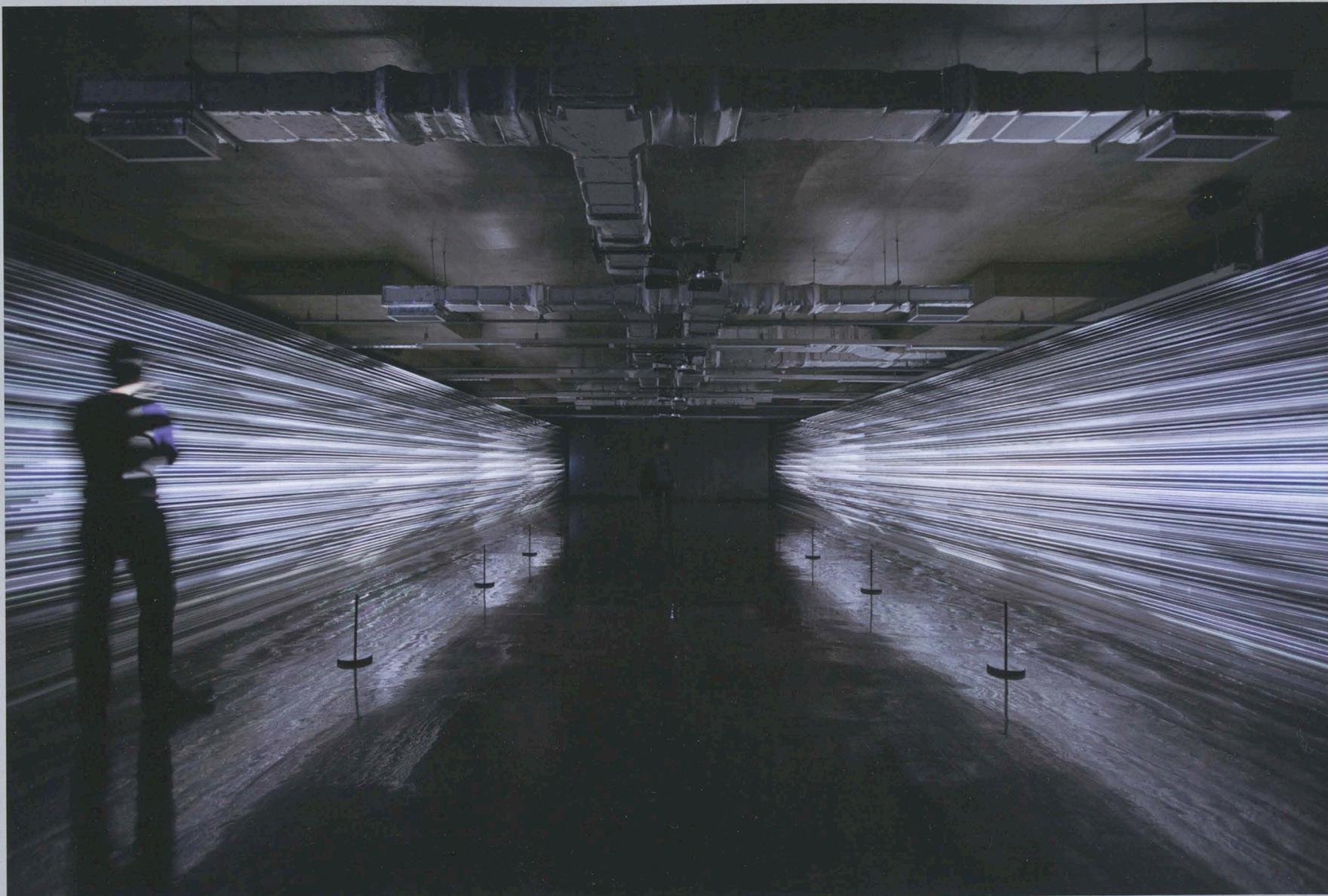
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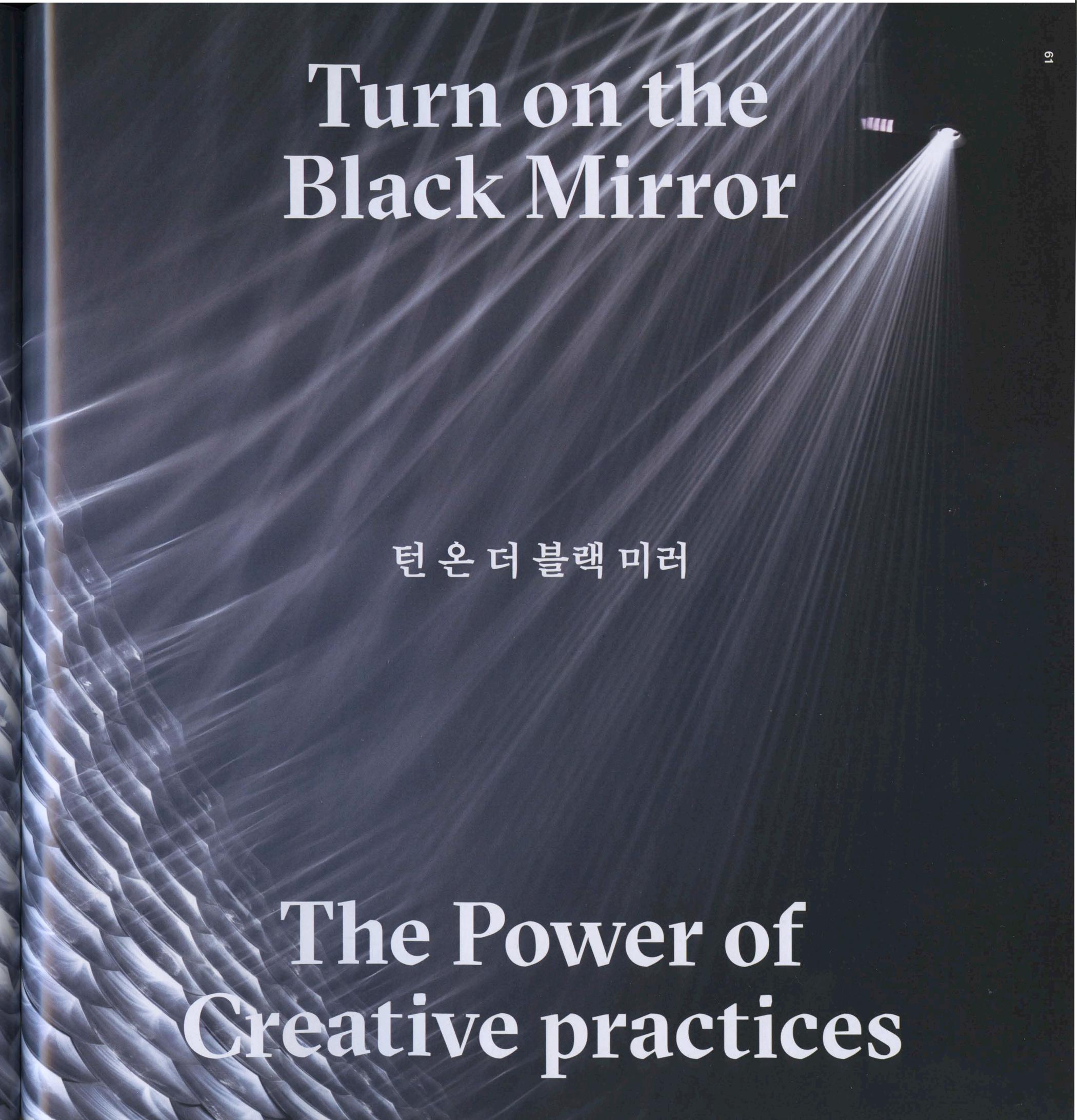
Turn on the Black Mirror

턴 온 더 블랙 미러

The Power of Creative practices

There are many ways to draw a circle on white paper. You can draw a line clockwise or counterclockwise, or even make out one with small dots. Say that you choose to make the colour blue. You can juxtapose yellow and green like pointillists, or overlap two different colours of transparent layers such as with cellophane. The outcome may be the same but the process and ideas in it are different. The advance of new media has led to significant changes in the way art is produced. The conventional way of moving a painting created in a studio into a white cube has been transformed into readjusting an installation that has been simulated in an atelier to fit in the black box. The subject of appreciation expanded from image to experience while an artist's canvas and brush were replaced by the multimedia screen and various kinds of software. The ACT Festival 'TEKTONICS', held in the ACC Creation from 25–28 November laid out the new modes of creation and production of art through exhibitions, workshops, lectures, artist talks, panel discussion, performances and screening. Fine coding skills are not the only requirement for an artist who uses new media production tools. Just like the old conception of the master, artists conduct a long and elaborate research efforts on the existing technologies and recreate them to fit within their needs. This article, beginning with the concepts, discourses and design narratives introduced at the festival, also look into how the ideas of the artists

are physically embodied via computers and other electronic devices, focusing on the production tools developed by the artists.

Kimchi and Chips, *483 Lines Second Edition*, 2015, Installation view at 'The Vault'

Basic Concepts for Beginners: The Binary System and Media Art

How can we transform programming language into art? Here is a work that starts with a binary system using machine codes to instruct the processing and ordering of the task. Based on encoding and decoding, converting analogue signals including sound and video into digital codes (0 and 1) and vice versa. Ryoji Ikeda's *test pattern[n°8]* visualizes the physical property of sound and use ultrasonic frequencies to make a connection with human perceptions. In the work, any data i.e., text, sounds, photos and movies, have been converted into bar code patterns made of binary, made up of 0s and 1s. Experimenting with 'the relationship between critical points of device performance and the threshold of human perception', the work began in 2008 by making a series of 8 pieces til now. 8 beam projectors and 16 loud speakers are installed in the dark and hundreds of frames consisting of black and white stripes are displayed every second, making a dynamic scene. 16-channel

Jurg Lehni & Alex Rich, *Empty Words*, 2008, Installation view at 'The Vault'

Jurg Lehni & Alex Rich, Longtime collaborators in exploring graphic design, language, and exhibition, Lecture view at Space 5 on 27th November

sound signals coupled with images fill the space and via a real-time computer programme, the signal patterns are converted into 8 bar code patterns.

Software, Warehouses for Creators

Software, generally used in real-time interactive installations, includes Openframeworks, Max6, Processing and vvvv. Along with short introductions, we will go on to the tools that were developed by the artists who participated in the ACT Festival. They are the artistic weapons elaborately refined to maximize the specific effects and experiences intended by the artists. Some of them are open source software which open source codes to the public and allow anyone who wants to use, modify and redistribute them for free. The advance of open source software broke the traditional concept of copyright and created an online momentum that strengthened the solidarity of creators.

Processing seeks a rather more intuitive and simple coding system compared to JavaScript. 'When you enter a line of code, a circle will appear. If you add several more, the circles will follow the mouse point and with another line the colour of them will change when you click. It is called 'sketching' in code. Enter a line and add another then another line again. Step by step, the programme is completed'.[1] Processing was developed by Casey Reas and Benjamin Fry in the MIT Media Lab in 2008 to offer more convenience in interactive graphic programming. It was influenced by the Design by Numbers initiated by John Maeda, who was also their supervisor, and is required in computational drawing and data visualization.

Max6 is used in the production of interactive works for real-time control. For instance, Carsten Nicolai and Daito Manabe use the programme in their audio visual performance and real-time motion capture respectively. The full name of the programme is MAX/MSP/JITTER and each of the words indicate different uses.[2] However, processing and Max6, most used by the artists, have certain frames. This was a result of the simplified codes created for the purpose, simpler than that of the programmers, of creating art. To overcome this, Zach Liberman and Theo Watson developed Openframeworks, based on C++ in 2005. Liberman said 'it was made for folks using computers for creative and artistic expression, and who would like low-level access to the data inside of media in order to manipulate, analyze or explore. That audience we felt was significantly underserved by the current crop of C++ libraries' and it did facilitate faster real-time interaction work.[3]

Delicate Handicraft Works

In Kimchi and Chips' (Mimi Son and Elliot Woods) *483 Lines Second Edition*, presented at 'The Vault' in the ACC Creation (an exhibition held till 31 May 2016), the calibration application developed by Woods, Rulr, adjusts the projector, shedding light on the spatial work. Rulr is a tool that enables communication among the devices of a media work installed in a specific space and helps them recognise (measure) the positions of one another. Rulr, using a digital emulsion Toolkit from 2012, refers to the process that embraces projection mapping and 3D scanning which are required to create an object of semi materiality (that is both real and virtual).[4] The technology allows 3D drawing in the air with functions

ranging from modelling, coding to measurement, and animation. Artists can use data acquired through the application in Openframworks, vvvv or Cinema 4D by creating a synaesthetic installation work. The 483 Lines also stated in the title of the work reflects the characteristic of NTSC standard used in analogue TVs. Coming from the creation of the image, which is made up of continuums of 483 lines of modulated light, stacked from the top to the bottom of a television screen, the work materializes in the 16m long analogue video image with a specific material, thread. Paperjs is an open source vector design tool developed by Jürg Lehni and Jonathan Puckey based on 'Scrpitographer.'[5] The tool patterns the effects that could be seen in Illustrator through coding. It allows live coding on the website and when a narrative is made by transforming the script, compressing the information of the code to share it with others. As a basic drawing tool, it adjusts dots, segments and faces in 3-dimensional space, including linking dots to make a segment or shortening the length of segments to make it look like soft curves. Alex Rich and Jurg *Lehni's Empty Words* (2008–) which uses Paperjs, began with their curiosity about Linotype, the typesetter that was used for empty walls or newspaper printing in the past. Inspired by a typography book written by Richard Hamilton in the 1960s, the work instantly produces a poster of what audiences write on a blank white note. The information input in the custom-made software interface cuts circular holes at a controlled speed via a vinyl cutter and according to the position of these dots, the letters start to appear. Unlike modern computer systems, the device limits several options for the production of the poster, including a maximum of five lines of text and an automatically determined type-size.

감각의 과잉과 매개된 몰입
– 화이트 큐브를 경험하는
새로운 방식

An Excess of Sense and
a Mediated Immersion
– A New Way to Experience
the White Cube

문혜진(미술비평가)
Hye Jin Mun (art critic)

Kimchi and Chips, *Line Segments Space*,
Digital Emulsion, Nylon string, 2013
Sound Design by Junghoon Pi

Kimchi and Chips,
Line Segments Space,
Digital Emulsion,
Nylon string, 2013,
Sound Design by
Junghoon Pi

scenery taken by his or her camera. When the participant connects the helmet to the power point, he or she can see what was taken by the other participants' camera. Participants freely roamed and changed on-off status, the viewpoint turns in random. Even though you are connecting to a specific power point, someone's status changes, and then the viewpoint changes.[1] When perception is detached from the subject and mingled with that of the others, the subject splits . Vision, which had divided the body and space, recombines with the body again. It is because a visual transfer occurs while the participant's body is moving in space. At this point the physical and spiritual spaces overlap, and reality and virtual reality are mixed.

When Briand's work brings the atmosphere of a gallery space to a more cognitive side, Kimchi and Chips and Nam Sangcheol make the real space deeply involved, not only as a perceptual experience but as a physical component of artworks. *Line Segments Space* (2013) of Kimchi and Chips was installed at Geumcheon Art Factory, carved into a physical space with 3mm thickness thread. Coordinates of the threads are scanned and input, based on the data supplied, recreating an identical imaginary installation. A rhythm of light, designed using computer programing, covers the threads in the real space, and darkness splits across the space with lines of light. Structural beauty, that came from a divided space is like a painting with 'a pigment called light.' (Artist) The strong contrast between light and darkness actually occurs in three dimensional space, however,

for spectators who observe the piece from a fixed viewpoint it can be seen like an abstract painting on a two dimensional canvas. At this point, the real space combines with digitized virtual reality and changes into a field of thought that connects material and nonmaterial, time and space, and art and technology.

A work of SangChul Nam also harmonizes real space with a virtual space. *Transparency* (2015) at previously mentioned exhibition 'DIS/PARITIES' is a video installation work that projects a grid pattern on plural screens. The entire space is changed to the geometric matrix that overlaps on top of one another. First of all, each screen has multiple grid patterns projected by the parallel layout of the screens, forming a spatial impression of itself. At the same time, a light source from the ceiling projects images onto the floor, screen images which augment the real space. The audience intervenes, inserting themselves into this space much deeper than in the case of Kimchi and Chips, put 'inside' the geometrical grid pattern, not looking from the outside. A sense of immersion is amplified by steam that physically checks the tracing of lights, and a grid pattern repeatedly contracts and expands, and continuously floats. While the rhythm of geometrical patterns evolves every movement, the light recalls an abstract painting by Ellsworth Kelly. SangChul Nam's work provides a sinking threedimensional experience of melting into a space. The spectators that get inside this virtual matrix, as if it was a real space, experience the mingling the body with space together in the shifting waves of light.

A case that experiments with the sensual surplus of light or sound in the extreme is Ryoji Ikeda's work. At the ACT festival Ikeda's work disassembled sound and images into units and returning them theoretically into nothing. For example, Ikeda creates visual results by returning images to the pixel units, creating code and lines with algorithms, and sequencing them continuously. *data.matrix [n°1-10]* (2009), which was introduced at Mediacity Seoul 2012, was a visualization of information that derived from hardware errors, software code and pure data frames, all of which stem from computers using data scanning at high speed and real-time programming.[2] Sounds that are based on white noise[3] vibrate throughout the space while pure data and pixels flicker. What the audience experience in this tempest of swirling data and sound is pre-linguistic. A primitive sense of the symbol and sign which precedes thought. When it stimulates senses to the critical point, shuttling from blackout to whiteout, one sense is paralysed and the other is sharpened.[4] From the place where vision has lost its light, the auditory sense, which is out of the range of normal hearing, emerges. The sound becomes material, penetrating the body and the audience sinks into a digital trans status.

The works that I have introduced above have one thing in common, in that they all sought new perceptual experiences through the induction and expansion of the senses through non-material means such as sound and light. This experience is a different sort of appreciation to traditional contemplation. What mediates the rendezvous between reality and imagination is the viewer's body.