

LiFE

hrm199: HAROON MIRZA
& FRANCESCA FORNASARI



FEAT. NIK VOID & TIM BURGESS

EXHIBITION JOURNAL



FROM 25.5 TO 24.9.2017 | FREE



EDITORIAL

BY INVITATION OF LE GRAND CAFE – CONTEMPORARY ART CENTRE SAINT-NAZAIRE, THE LiFE IS HOSTING A NEW WORK BY BRITISH ARTIST HAROON MIRZA.

This project, entitled , and presented by Haroon Mirza under the name of his studio, hrm199, has been conceived in response to this monumental atypical space which is celebrating its tenth anniversary. Since the opening of the LiFE, artists such as Anthony McCall, Simone Decker, The Chapuisat Brothers, Jeppe Hein, raumlabor-berlin and now Haroon Mirza have taken up the challenge of mastering the 1460 m² of the former shelter for combat submarines. This regular programme of XXL-size exhibitions provides a unique testing ground for Le Grand Café, one of the few contemporary art centres in France to deploy its activity on this scale. In this way it extends its experience in commissioning site specific works and allows internationally known artists to produce unique projects. Haroon Mirza is showing a work at the intersection of different fields of knowledge, reflecting the LiFE and its multidisciplinary programme. The artist has collaborated here with architect Francesca Fornasari and musicians Nik Void (Factory Floor) and Tim Burgess (The Charlatans) to produce a work that sculpts the acoustic space in the visual space and vice versa. At LiFE, the project imagined by Haroon Mirza is no exception to this rule, such is the vibrancy and power of the experience that he offers us. He sets up a journey of sense and sensation that calls back into question the mysteries and contradictions of humanity's constant hunger for meaning, its oscillation between rational scientific knowledge and spiritual or political belief. The path travelled by Haroon Mirza, virtuoso composer of our technological age, is one that is open to new perceptions of reality and listening out for the sound of the world.

Sophie Legrandjacques

Director Le Grand Café – contemporary art centre. Curator of the exhibition

/// THE EXHIBITION /// IS PROGRAMMED BY LE GRAND CAFÉ, CONTEMPORARY ART CENTRE, AND PRODUCED BY THE LIFE - VILLE DE SAINT-NAZAIRE.

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EXHIBITION JOURNAL

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Tim Burgess, The Charlatans

Acknowledgements
Lisson Gallery, London
Atelier blam, Nantes

EXHIBITION

Haroon Mirza alchemically transforms static and interference to sculpt the acoustic and architectural space of the LiFE. Engaging with his project is like experiencing a musical score in three dimensions and in three movements, placing the body and the senses at the centre of the experience of the artwork.

The zigzag form $\frac{AA}{AA}$, title for the exhibition, is an astrological reference: the typographic interpretation of the sign of Aquarius, the water carrier, it translates an undulating movement into a geometrical wave. According to some astronomical calculations, the great periods of our history are determined by the alignment of the Sun with one of the constellations of the zodiac, each 'Age' lasting about 2166 years. We are on the point of entering the Age of Aquarius, which will be an epoch of rediscovered harmony, characterised by the importance of progress, scientific thought, and critical reason.

Haroon Mirza has always been fascinated by wave phenomena; physical energies, imperceptible to the naked eye, that in reality regulate all of our interactions. In his work he is especially interested in electromagnetic and sound waves. While everyone is aware that sound waves (sound, infrasound, ultrasound) allow for exchanges between living organisms, we might be less conscious of the electromagnetic waves that are also behind many forms of communication on Earth (light, radio, wireless equipment, everyday objects, magnetic fields...). According to the theory of French physicist and researcher Joël Sternheimer, sound could even organise living beings and the communication between our cells themselves!

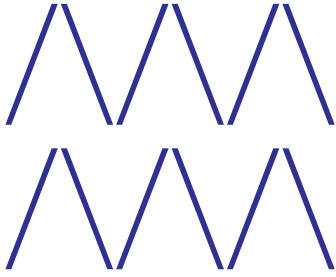
Beginning with the proposition that the visual dimension has largely prevailed in Western art to the detriment of the other senses, Mirza attempts to restore listening to a privileged place by giving the visitor an experience of reality through sound. In his works, the source of the sound being heard is always directly visible, allowing the spectator to feel, through their body and their senses, the different information that makes up every environment. So the visitor is decoding both what they hear and what they see – the way that the sound is produced. For this reason, it is especially important to be experiencing his installations in the 'here and now'.

AN ANECHOIC CHAMBER

In a completely soundproof box, the visitor's body finds itself engaged with the elements that Mirza is working with – sound, light, time and water. It is a strong sensory and temporally immersive experience, conceived around a fountain that draws its water directly from the port basin beneath the submarine base. With this hidden watery presence the artist calls upon the memory of the site and rediscovers its energy. The fountain crystallises an almost sacred experience of ritual contemplation: the jet of water appears to be inexplicably frozen in the geometric form of a double helix, evoking the modelling of a DNA sequence. Mirza sets up a quite dizzying equilibrium of physical phenomena to interconnect different elements and make an image of genetic information appear: the biological macromolecule present in every living cell.

4 VIDEO SCREENS

Projected on the back wall of the anechoic chamber, and on three screens suspended at an angle, Haroon Mirza orchestrates a multiplicity of images: raw, captured on a smartphone or sampled from videos on You-

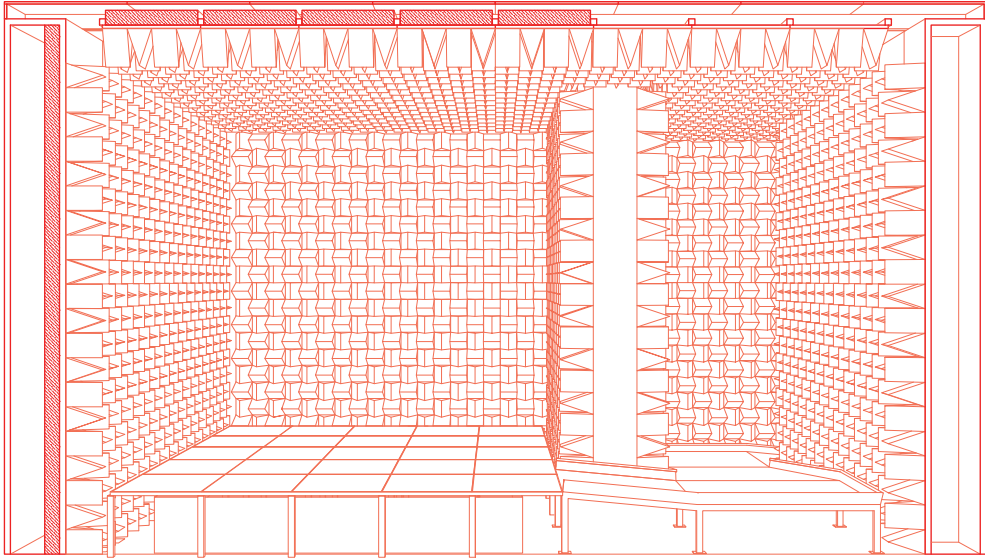


Tube. He adopts these fragments as material to recount our world, exploded and digested by the Internet. The collage of heteroclitic sources is composed of different thematic inputs:

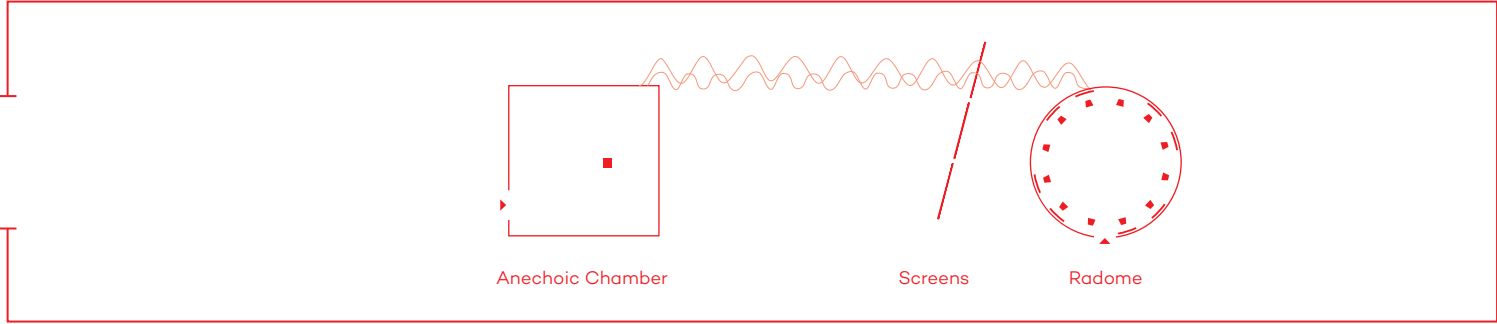
NATURE: DNA and the relationship to genome coding; wave theory, which constitutes one of the foundations of quantum mechanics (the branch of physics that studies and describes fundamental phenomena at work in physical systems).

SCIENCE AND TECHNOLOGY: information technology; artificial intelligence; language. **ENTHEOGENS:** the nature of psychotropic plants used for spiritual ends and modifying states of consciousness; the melodies and chants that accompany states of trance, shamanism.

BELIEFS: religion; the rise of extreme ideologies; the Orient-Occident duality; Europe.



From top: Anechoic Chamber, technical plan by Francesca Fornasari. Exhibition plan, by Francesca Fornasari



In the profusion of combinations, the artist acts as a composer, mixing sources then re-encoding certain sequences of the score. The videos are progressively affected by static and distortion, until they transform themselves into pure sonic material, as if Mirza wanted to transcribe visual and sound information by a signal, an energy, an electrical flux.

THE RADOME

The radome structure situated on the roof of the submarine base is a space related to listening-in or intercepting communications. The artist reemploys it, building a replica with the dome opened outward. In this radome, Haroon Mirza has concentrated every sound source in the exhibition, whether it comes from the videos, the DNA fountain or the electrical signals of the LEDs. A focus of intensified light and sound, crackling with electrical flashes, the installation is as provocative as it is captivating; like repetitive music it suggests sensory disturbance and trance. The opened structure liberates an energy that fills and coats the entire space.

CODE

This drawing is not a simple technical plan of the exhibition. As if looking at the source code of a computer programme, in it we can distinguish two signs, one square and the other round, separated and linked by a slash. The slash is one of the most-used characters on the Internet; in the language of computing it links elements (address path of a URL or a file on a drive), but in mathematical language it divides. There are therefore three poles that organise the space and interact through the intermediary of a wave-like double serpentine line, which traverses and connects the different elements. The sound programming also uses binary computing language. Is the question of using sound to transcribe the visual elements and the flux of the LiFE's physical energies a question of coding? The musical composition that Mirza deploys in the space is produced thanks to *Emerging Paradigm*, a kind of electronic control board that lets him programme the synchronisation and restitution of the full range of sources in real time.

MISUNDERSTANDING AS LANGUAGE

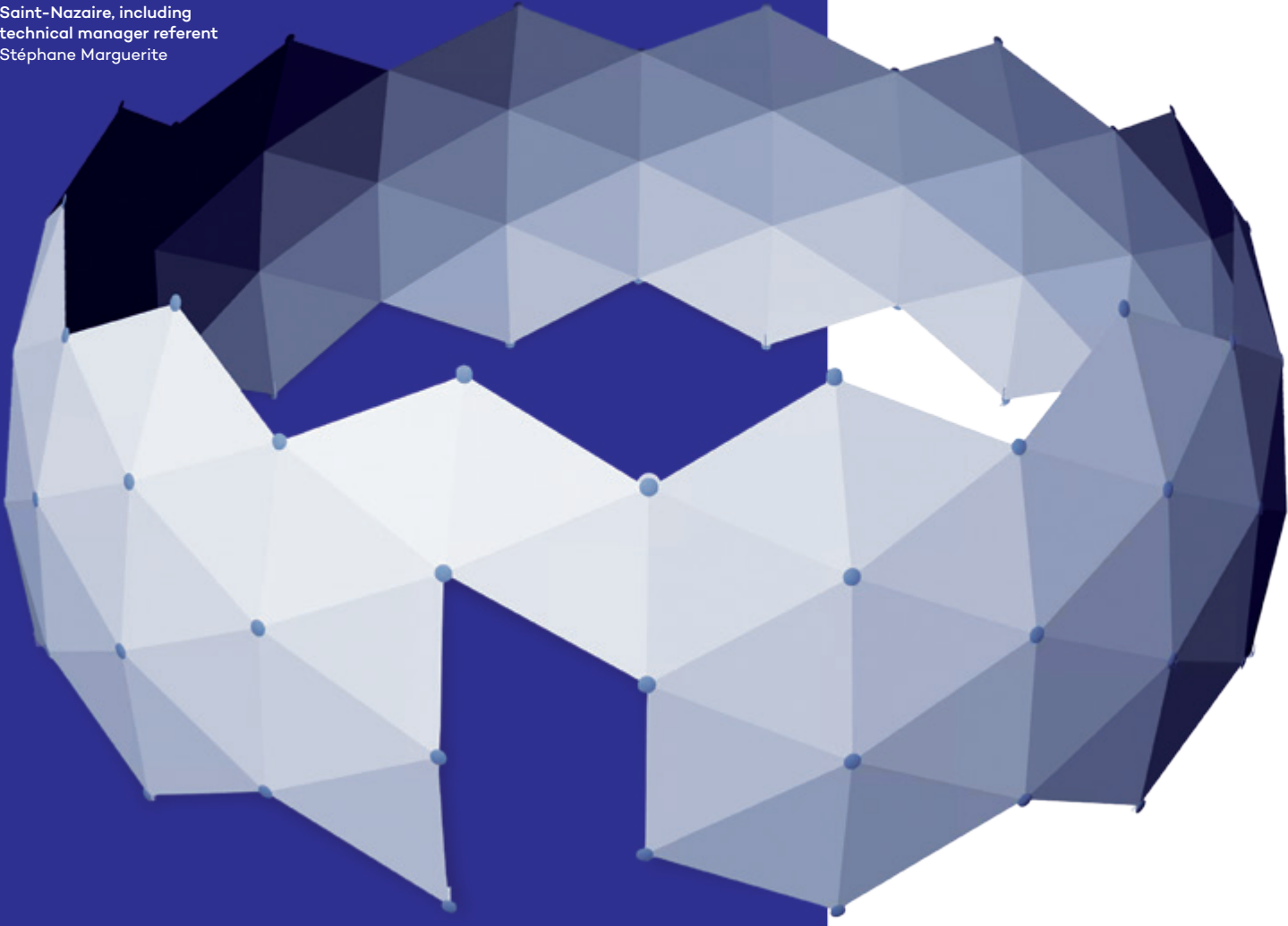
Mirza calls upon at least three languages in the contents of the videos; deliberately, not one is translated. He also adds a text, written in English, extracted from *The Psychodelic Experience* by Timothy Leary. He reorders the words by their frequency, and two musicians from the rock and post-industrial scenes then perform this new textual material: Nik Void from the group Factory Floor and Tim Burgess from the group The Charlatans. Translation or absence of translation, transposition and interpretation: the artist is confirming here that his work as a whole approaches language as a medium that never carries a single message, as a sound tool rather than a means of unequivocal understanding. Haroon Mirza demonstrates that interpretation depends upon the individual as a 'communicating body'. Exhibition visitors therefore generate different versions of reality. The artist goes even further, suggesting that language itself (spoken and written) does not succeed as a tool for enlightenment, but can easily become an obstacle, notably in politics and in science.

KNOWLEDGES OF THE WORLD

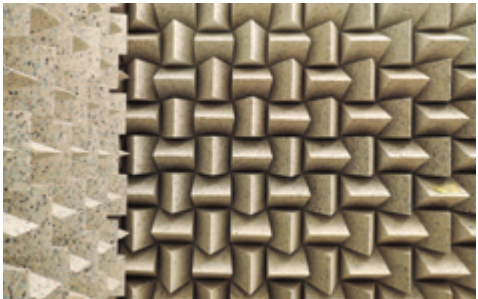
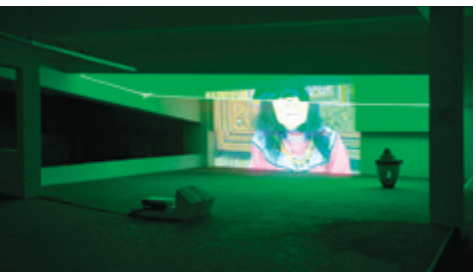
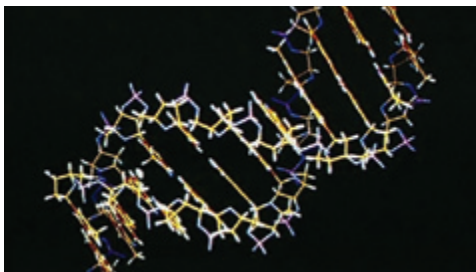
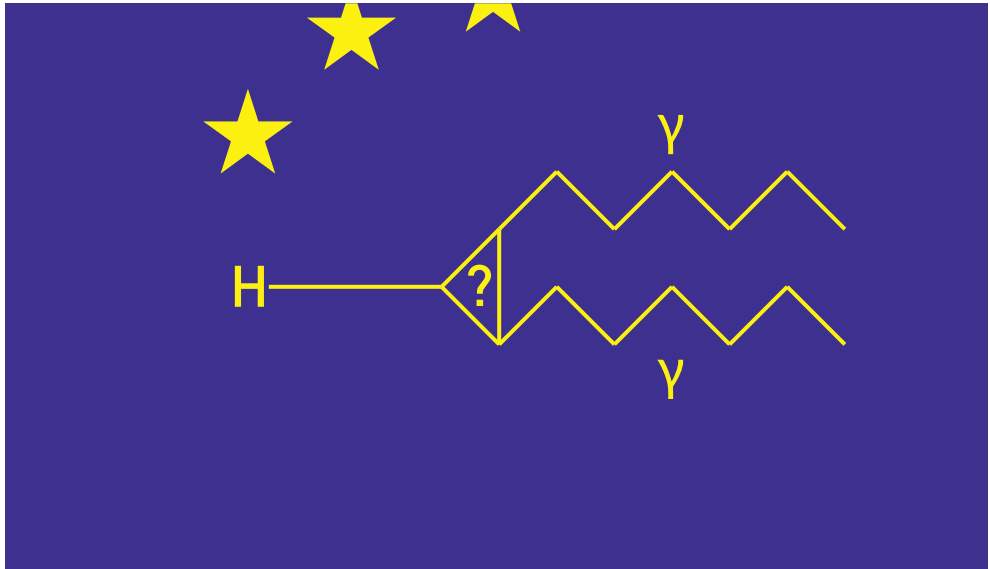
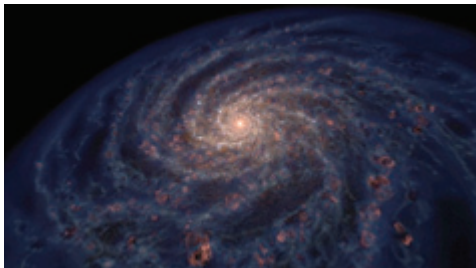
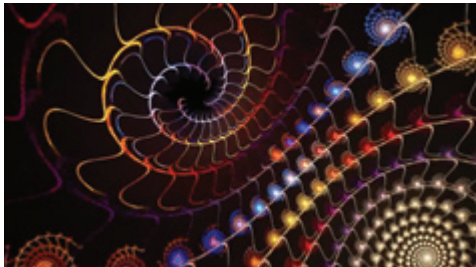
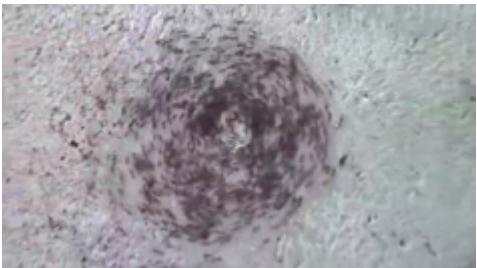
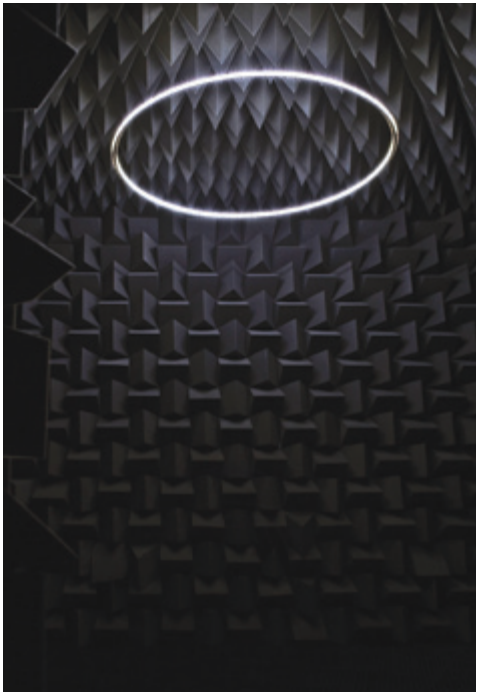
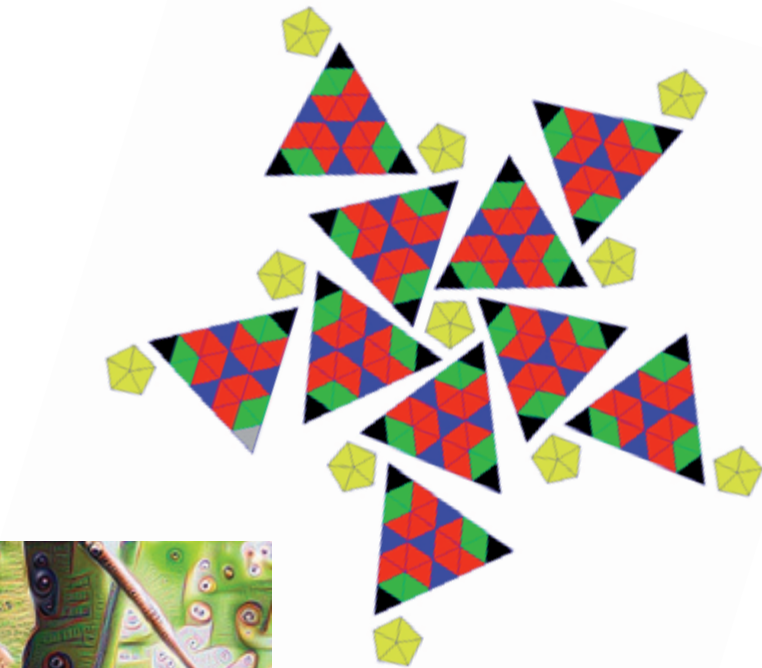
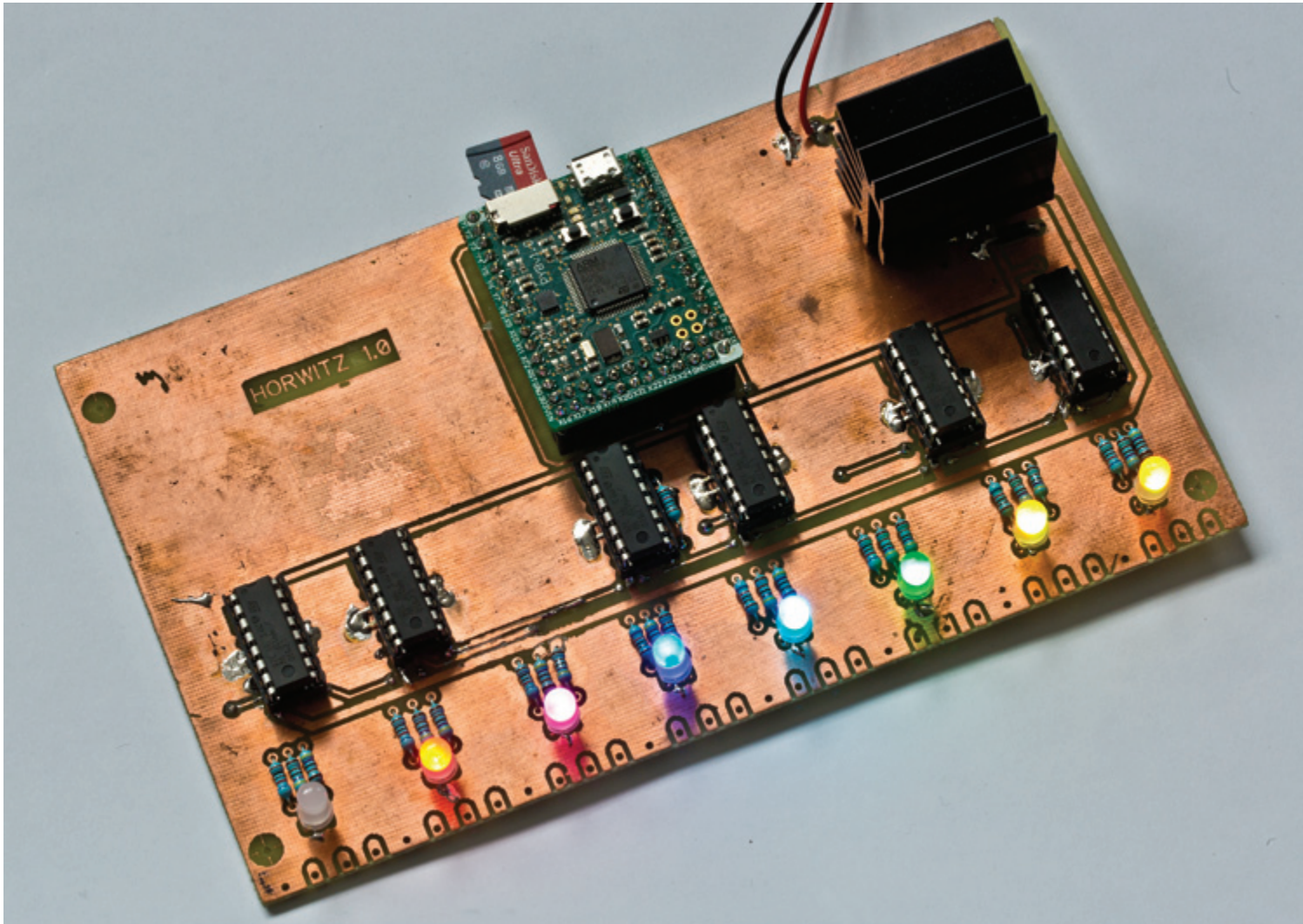
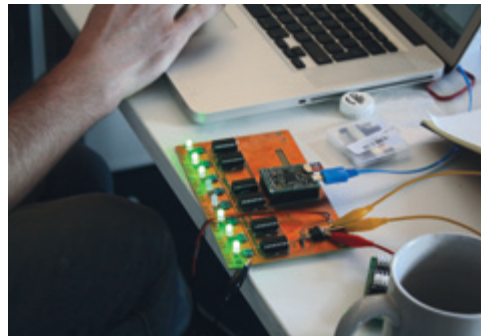
For the artist, the fact that his installations invariably draw on multiple systems of interpretation of the world (astrology, mythology, philosophy, science, cosmology, shamanism...) introduces the question of the point of view in the way that we perceive reality and interrogates how belief relates to this perception. Human societies have, since Antiquity, elaborated conceptions of the universe within which everyone found their place. These societies have carved out their organisation from the cosmic order: calendars fixed on the solar and lunar cycles, human sacrifices paying homage to the Sun... Myths and religions have transfigured the stars into gods and goddesses. These inseparable systems have established the influence of the planets on the destiny of individuals and societies. Similarly, scientists have a theoretical representation of the world and nature that cannot be dissociated from the social beliefs and the technical advances of their time. In this respect, Mirza takes an interest in the indigenous tribes of several regions of the world and notably in a more esoteric relationship to knowledge. How can it be that peoples have developed, in isolation from all civilization, an understanding of their environment (and of 80 000 plant species in the Amazonian forest, for example) that draws on molecular biology? The response can be found in the development of shamanic practices that allow them to access an 'other' level of perception, directly linking them to the spirits of the forest, of plants, of animals and every communicating system...

EXPERIENCE OF THE SENSES AND SPACE

The environment that the artist has created at the LiFE favours sense perception that goes beyond the visual dimension: sound becomes a time-based tool for revealing space and understanding the very notion of being present to this space. In all these carefully staged structures, perhaps what counts the most is their status as instruments, and our capacity to receive what they transmit. Sounds seem to refer to the universe, both audaciously futurist and profoundly primitive. The particularity of Mirza's work lies in his way of connecting us to the direct resonance of the world, organic and spiritual, without allowing it to be fixed in a symbol or icon. Mirza tries to reconcile us with the physical world by offering a sensory experience because for him, while life remains an elaborate phenomenon, language and representations lead to a hyper-simplification of our world, blinded to complexity and therefore to the riches from which it is made.



Radome 3D simulation for the exhibition, by atelier blam





Haroon Mirza

Haroon Mirza was born in London in 1977 where he lives and works. He has an MA in Design Critical Practice and Theory from Goldsmiths College (2006) and an MA in Fine Art from Chelsea College of Art and Design (2007). He was awarded the Silver Lion of the 54th Venice Biennale, Italy (2011), the Zurich Art Prize in 2013, the Nam June Paik Art Center Prize in 2014 and the Calder Art Prize in 2015. He is represented by Lisson Gallery, London.

www.clickfolio.com/haroon

hrm199

hrm199 is a studio platform that allows people from a diverse range of disciplines – technical, scientific, artistic – to collaborate. Founded in 2004 by Haroon Mirza as a way to consolidate his interdisciplinary practice, the studio was envisioned for he and others to develop their individual and collaborative work. The projects are cross-disciplinary in nature drawing influence from the histories of art, music, design, architecture, fashion, technology, engineering and sciences. The studios ethos is to present the complexity and multiplicity of authorship that goes into the production of artistic projects. Due to its interdisciplinary nature, the site for a project can be anything from an opera house to an iconic architectural structure to a nightclub.

www.hrm199.com


hrm199 team:

Haroon Mirza, artist
Francesca Fornasari, architect
Gaia Fugazza, artist
Kenji Takahashi, technical advisor
Alice Hackney, studio manager
Ben Barwise, head of research and development

INTERVIEW

As the title of the exhibition, you have chosen an enigmatic symbol, could you tell us more about this evocation?

For me the symbol brings together several ideas that I'm interested in. The symbol represents the astrological sign Aquarius which, as we were reminded of in the 60's and 70's with the New Age moment, is the astrological era we are entering due to the axial precession, the Earth wobbling over time, under the effect of the gravitational forces exerted by the Sun and the Moon. The symbolic and esoteric meaning of this logo dates back to its creation in Babylonian times and yet it has an extremely profound relevance now. The symbol looks like two triangle wave forms on top of one another – being based on water. It's strange however that as we move into this new astrological era, which happens every 2166 years or so, our scientific endeavours have reached a limit where all the observed universe can be understood as a wave function – a quantum state through which all the physical universe can be reduced to a probability amplitude – a waveform. It is a fascinating coincidence that somehow a symbol created in prehistory can be so relevant at the moment it takes centre stage cosmologically. It is like the founders of astrology and its logo knew that waves would represent the height of human understanding of the universe in the 21st century. Either that or it's kind of a self fulfilling prophecy. The same could be said with the relationship between the era of Pisces and Christianity: a significant paradigm shift. Evidence of this relationship may be found in the *ichthys*¹ a symbol that represents both Christ and Pisces around the same time. My route to this revelation came through working with two types of waves over the last decade – sound waves and electromagnetic waves. It was in trying to synthesise the two that brought me to the notion that somehow this is a very contemporary condition and the reasons for that go beyond our understanding of time and space.

The exhibition  represents in itself a partition of space, how did you compose and sequence this one? Did you take the context of the LiFE into account?

I collated the research and work I have been doing over the last two or three years and put it into the context of a u-boat bunker in France during a politically heated time where we see a wave of far right ideology based on fear and confusion through the use of social media and information technologies. The content of the work is a collage of these things and uses an open engagement with the unknown (shamanism and scientific curiosity) as an antidote for the extremism we all face. The space itself is designed together with Francesca Fornasari. We have created three distinct spaces that reference the site and its history and each operate very differently both visually and acoustically. One is a semi-anechoic chamber that has a reservoir of water beneath the floor. The reservoir came from Francesca's desire to reference the water beneath the floor of LiFE. Her interest in the water led me to propose a water feature that would use strobic light to create a double-helix form from water. The acoustics here are very dead and dry as you can imagine. All you hear is the water spilling and the low frequency sound of a speaker vibrating a hose pipe at 24Hz. There are also 2 microphones here picking up this sound. The second area is an acoustically more ambient space for the video content where the reverberation of the building makes the sound less coherent. Then we have a half replica of the radome on the roof. In here all the sounds form the water feature and videos collapse into a surround sound composition accompanied by electrical signal that illuminates LED's in the radome and becomes audible through speakers arranged in a circle. Here the sound is very precise and clear. The history of the radome as you describe it makes its presence all the more relevant both conceptually and physically. It's both a space for listening and a reminder of conflict, as this structure housed a NATO surveillance radar in Berlin during the Cold War.

SOPHIE LEGRANDJACQUES ~ HAROON MIRZA. MAY 2017

Rythmics have a great importance in your work. Can you tell us how you composed the sound part?

First the videos are edited based on loose narratives. They are edited to a click tempo of 133.3 bpm (beats per minute), which is based on the standard revolution of a turntable – 33 1/3 RPM (revolutions per minute). Once the videos are complete, I compose the electrical signals in code: basic on/off or pulse width modulation (PWM)², which is also a binary process.

In your work, the audience has a strong sensory experience. It seems that you are trying to create a new perception of reality by restoring all its complexity. For this purpose, you have developed an electronic device called *Emerging Paradigm*.

Although we understand a lot about reality, our knowledge is still only the tip of the iceberg. The paradox being that the more we know the more we acknowledge we don't know. This is formalised through the complexity of the imagery and sound presented at LiFE. The layers of footage in which meaning and truth become void. A sense of the unknown is prevalent – both a fear of it and an embracement for better or for worse. The bespoke media player, *Emerging Paradigm* synchronises up to four videos and multiple channels of electrical signal. This facility renders layers of audio visual information that reflect the current overload of content presented by media technologies.

You regularly offer complex and disruptive experiences to the public. You compare the visitor to a "descrambler". Do you envisage the experience of your work as a translation?

I think so. My work is a type of translation for me: materialising abstract things from the collective unconscious. It then also requires a translation for others who experience it but one without semantics. One has somehow to descramble this information overload using the instruments of their physical body and mind. A true translation of the work would be a feeling not a meaning.

In this project, you evoke different ways to understand the reality of the world or approach it: the psychedelic experience through plants for instance and some scientific research about DNA, Zipf's Law³, artificial intelligence (AI). You seem to question our definition of what is human consciousness, its superiority over nature and other biological forms of life.

I don't think that we are a superior species, nor do I believe that intelligence is a quantifiable process and that humans are at the pinnacle of this process. We are indeed at the top of the food chain but then so are jaguars and octopus both of which have been around far longer than homo sapiens, so are way more evolved. Terence McKenna⁴ believes a lot of these ideas around superiority are a fallacy stemming from an ideology based on domination. Aspects of biochemistry, linguistics and AI research now support this hypothesis. Terence McKenna argues that the psychedelic experience reveals a direct connection to other modes of reality where we are able to somehow communicate with other entities. This is what shamanic traditions have been saying for millennia and could be related to the phenomena science thinks it knows is there but can't see. So our perception of reality is a type of illusion generated by our physical resources.

How do you connect the importance of religions and fanaticism in our actual world with those scientific researches about the meaning of the world, of the reality?

It may be that science is no different to religion in the end. Science is a belief system based on observations of the physical world from the quantum scale to the far reaching edges of the universe. Moreover, we have absolutely no idea how and why it all began.

There are many inexplicable phenomena in science, such as wave particle duality, superposition and Big Bang theory but unlike religion it avoids putting it down to one omnipotent concept.

Maths seems to be an abstraction of our physical universe and not the physical universe itself. If all numbers are indeed representational of physical things then maybe we might imagine that there is one exception. For example zero: there is no evidence of zero in nature. What came before the Big Bang and what lies beyond the observed universe is merely hypothetical. For a while we thought space was void of any physical matter but now we believe it is constituted by dark matter, dark energy, photons, gravitons and so on. The idea that zero does not in fact exist would destroy our vision of things, based on mathematics. What would the removal of zero from our number system bring to our understanding of the physical universe? If you take religion and replace the concept of god with the concept of zero you have science!

You attach a great importance to language and to the forms of communication. You tell us that "misunderstanding is also a form of understanding". What do you mean by that?

A sculptor friend of mine, Mattia Bosco who studied philosophy introduced me to the notion that misunderstanding is a form of understanding. When you remove the idea of truth you are left with the communication of information (coding and decoding). One processes that information, which is what we call experience. In the exhibition, there is a clip in the videos where Francis Crick⁵ talks about qualia – how one person's perception of colour or pain can never be proved to be the same as another's. I think this philosophical notion extends to language too. Marshall McLuhan⁶ sees language as a crutch more than a tool⁷, certainly not the experience of the object itself. I guess it goes back to the idea that the experience of the work is stronger if it is a feeling rather than a meaning. So words are experienced as nothing more than meaningless sounds. In this sense meaning is a political tool. Meaning can be subjective and multiple, which has always been the case in art.

NOTES

- (1) From the Greek *ikhtus* meaning "fish", acrostic of the Greek words *lêsous Christos, Theou Yios, Sôtêr*, a word found on some Christian monuments.
- (2) Technique for getting analog results with digital means.
- (3) Empirical observation of the frequency of words in a text.
- (4) Terence Kemp McKenna (1946–2000), American ethnobotanist, psychologist and author, an avid advocate of responsible use of natural psychedelic plants.
- (5) Francis Harry Compton Crick (1916–2004) is a British biologist. He was awarded the Nobel Prize for Medicine in 1962 for the discovery of the structure of DNA.
- (6) Herbert Marshall McLuhan (1911–1980), Canadian sociologist and communications theorist, he is one of the founders of contemporary media studies.
- (7) especially in Western civilisation where in written language objects become a visual representation of an acoustic representation of the object.

LIFE

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Opening times
From 25 May to 7 July and from 1st
to 24 September: From Tuesday to Sunday
14:00-19:00, Wednesday 11:00-19:00
From 8 July to 31 August:
From Tuesday to Sunday 11:00-19:00
Free entrance

Information, contact and bookings
Laureline Deloingce, Education officer
tel. +33 (0)2 40 00 40 17
deloingcel@mairie-saintnazaire.fr

IMAGES CENTRAL PAGES:

Haroon Mirza and Ben Barwise working
in the studio, Museum Tinguely, Basel,
Photographer: Sandra Beate Reimann

Haroon Mirza, *A Chamber for Horwitz;
Sonakinatography Transcriptions in
Surround Sound*, 2015.
Prototype device. Courtesy hrm199.
Photographer David Bebber.

Stills from the Screens, edited from
YouTube videos or Smartphones.
Nik Void and Tim Burgess are filmed by
themselves.

Schematic development of the structure
of the radome © LIN architects

Haroon Mirza, *National Apavilion of
Then and Now*, 2011.
Dimensions variable. Venice Biennale,
2011. Courtesy hrm199 and Lisson
Gallery, London. Photographer Kiki
Triantafyllou.

Haroon Mirza, *A Chamber for Horwitz;
Sonakinatography Transcriptions in
Surround Sound*, 2015.
Dimensions variable. Installation view
at Museum Tinguely, Basel, © 2015
Museum Tinguely, Basel. Courtesy
Lisson Gallery, London. Photographer
Bettina Matthiessen

Haroon Mirza, *ããã*, 2016
Dimensions variable. Installation view
at PIVÔ, São Paulo, Brazil, 2016 ©
Haroon Mirza. Courtesy PIVÔ, São Paulo.
Photographer Everton Ballardin

Haroon Mirza, *ããã*, 2016
Mixed media including *Emerging
Paradigm* (2015), 4 channels of video
and 8 channels of electrical signal
Dimensions variable. Installation view at
Contemporary Art Gallery, Vancouver,
Canada © Haroon Mirza. Courtesy
Contemporary Art Gallery, Vancouver.
Photography SITE Photo / Scott Massey

Polyurethane foam dihedrons

EXHIBITION EVENTS

OPENING AND DJ SET
Bay 14 of the submarine base

Following the opening on
Wednesday May 24 and in order to
celebrate the 10th anniversary of
the LiFE, the evening continues at
the VIP (a venue for contemporary
musics) with a DJ Set, with the
participation of Haroon Mirza and
DJ Moosa.

Free entrance.
Food Truck on site for dining.

CARTE BLANCHE
TO HAROON MIRZA
Thursday 7th September at 20:30
“Embrace of the Serpent”

Cinema screening at the Salle Jacques-
Tati, Saint-Nazaire.
Adventure / drama film by Ciro Guerra.
Colombia, Venezuela, Argentina.
Black and white – Original soundtrack
with French subtitles, 125 min, 2015.

Karamakate, a powerful Amazonian
shaman, sole survivor of his people,
lives in isolation in the depths of
the jungle.
Decades of solitude have made
him a chullachaqui, a human
without memories or emotions.
His life is upended by the arrival of
Evans, an American ethnobotanist
in search of yakruna, a highly
potent sacred plant with the virtue
of teaching the ability to dream.
Together, they undertake a journey
to the heart of the Amazonian
forest during which past, present
and future meld together, and
which, little by little, allows
Karamakate to rediscover his lost
memories.

Cinéma Jacques-Tati – Agora, 2, bis rue
Albert de Mun, Saint-Nazaire.
Prices : full 6,50 €, reduced 5,50 €.

For those who wish, there will be
a short visit to the exhibition at
19:00, followed by a picnic on
the roof of the base, before the
screening (bring your own picnic!).

Short visit free, reservation required.

THE RADOME
On the roof of the submarine base

The Radome is a space
of documentation and
experimentation conceived as an
extension of the exhibition.

Open on Saturday and Sunday from
15:00 to 19:00 from 8th July to 27th August.
Free entrance.

RADOME WORKSHOPS
For families, art and science
workshops around the themes
of the exhibition.

On Saturday and Sunday from
15.30 to 17.30, from 8th July to
27th August.
Family visits to the exhibition
at 15:30, followed by hands-on
workshops.

Free entrance. Reservation required.
Spaces limited and subject to availability.
Full programme soon available.

GROUP VISITS

Schools (from primary to sixth
form) and other groups can book
guided tours, adapted to their level,
at any time of the year.

Free entrance. Reservation required.

DIGITAL WEEK WEEKEND

Programme devised in partnership
with PING Nantes and Les portes
logiques at the end of Saint-
Nazaire Digital Week.

CIRCUIT BENDING WORKSHOP
Saturday 23rd September
14:00 - 18:00 at the Radome

Circuit bending is the modification
of pre-existing electronic circuits,
on the one hand to create new
functions for mass-produced
objects, and, on the other, to find
out about how these objects
operate and, by extension,
about all the information and
communications technologies of
which they are part. A great chance
to open up the machine, look under
the bonnet, and gain a better
understanding of the workings
of the numerous machines that
surround us!

Free entrance. Reservation required.
Spaces limited and subject to availability.

ELECTRONIC INSTRUMENT
WORKSHOP
Sunday 24th September
13:00 - 19:00 at the Radome

Like a construction kit: using circuit
diagrams and simple electronic
components (potentiometers, logic
chips, light sensors...), participants
are invited to build sound
generators. Choose which of 7 more
or less complex instruments to build
from the different circuit diagrams.
Once the circuits have been
created, they can be manipulated
with pocket lamps or using other
sensors (pressure, bending) to vary
the sounds produced, and create a
ludic and original group sound piece.

Free entrance. Reservation required.
Spaces limited and subject to availability.

