

Lorena Lozano. *Danza infinita*

A BIOGRAPHY OF THE CLINICAL BODY AND THE HUMAN BODY. A TRIBUTE TO HENRIETTA LACKS

THE CONCEPT

The Project *Danza infinita* [Infinite Dance] opens up a reflection on the politics, rights and property of the body and the advances brought about by medical and biological research, while at once paying tribute to Henrietta Lack. She was an Afro-American woman born in the USA from whom cells were extracted without her consent, before her death in 1951. These were the first human cells that were able to be developed in a laboratory and they are still used today in the majority of biomedical research projects. The story of Henrietta Lacks lays bare the legal, ethical and philosophical questions which biomedical research must face.

The installation screens images of “HeLa cells” and footage of the dancer Sonia Gómez heavily pregnant during one of her rehearsals. It is a *mise en scène* of the process of construction of an improvised choreography at a specific moment in the dancer’s life. While, on one hand, the biological sciences present the human body as composed of separate and separable parts and suggest an interchangeability of the organs without reference to the body as a unit, the dancer’s work, on the other hand, helps to reconstruct this body as a whole, underscoring the continuity of its vital functions. The whole explores the ways in which biological sciences doggedly pursue immortality and a transcendence of death, rendered here in an installation by means of a *mise en scène* of a clinical test and a dance rehearsal.

TECHNICALS DETAILS

Projection: Human epithelial cells -HeLa Cells- observed through an Olympus IX8 microscope. The cells were captured every 10 minutes over 24 hours by an ORCA –Hamamatsu camera - and digitally processed with ImageJ software for an experiment with proteins.

Photographic material: Courtesy of Marco Archinti, Instituto de Recerca Biomédica [Institute for Research in Biomedicine, Barcelona], IRB, Parc Científic, Barcelona

Film: *Ensayos para una danza infinita* [Essays for an Infinite Dance], video HD, 1’, filmed at La Nave de LABoral Centro de Arte y Creación Industrial, in August 2011, with the dancer Sonia Gómez heavily pregnant.

Camera: Ana F. García / LABoral

Edition: Ana F. García and Sergio Redruello / LABoral

COLLABORATORS

Scientific Advisors: Marco Archinti and Chiara Castellazi

Dancer and performer: Sonia Gómez. www.soniagomez.com

Artistic Advisors: Tryona Ryan, Harald Melrose –Turek, Verónica García Ardura and Cristina Ferrández, Ediciones Marver

THE ARTIST: **Lorena Lozano** is an artist and researcher, graduated in Biological Sciences at Oviedo's University and in Public Art at Glasgow School of Art, Scotland. Her work is an observation of relationships between humans and the environment, an exploration of the dilemma between culture and nature, between displacement and cultural identity. Connecting art and science methodologies she creates critical and collaborative research processes. She has worked on environmental and community regeneration projects, landscape and public space studies in Switzerland, Scotland and Catalonia. She currently lives in Asturias and is a founding member of ecoLAB, a project on Art, Ecology and Thecnology of LABoral Centro de Arte y Creación Industrial. www.lorenalozano.net/

A CALL OF THE PROJECT OFFICE

In April of 2011, the LABoral Projects Office issued an open call for the production of three projects, which upon completion would be exhibited in the "Sala Nueva" [New Room] at the Centro de Arte y Creación Industrial. The rules envisaged the selection of two proposals by artists who are Asturian or resident in Asturias, and a third one aimed at creators of any nationality interested in completing a two-month artistic residency at the Centre. For the two Asturian artists fees amounting to 1,500 euros were allocated, and an additional 6,000 euros for the production of the proposed work, while for the project by creators of any nationality, in addition to the 6,000 euros for the production of the work, another 2,000 euros was set for fees and other expenses incurred during their residency at the Centre of Art and Industrial Creation.

OTHER SELECTED WORKS

14.10.2011-23.01.2012

Hitos, ya nadie muere en casa [Milestones. No-one Dies At Home Anymore], from **Eduardo Guerra**, aims to reflect those places that die among themselves, the last things at home, yet in spite of this, it is not the end of anything. Pieces in which image and sound gel into a closed unit that contains a complex "landscape". The overall project is put into effect by ten "milestone sarcophagi", each containing an undetermined and unidentified place except for its photographic representation and a sound track; combining image and sound in a non-cinematographic work aimed at transcending forms and formats.

05.10.2012-12.01.2013

Feather Tales II, from **Ricardo Nascimento** (São Paulo, Brazil) and **Ebru Kurbak** (Izmir, Turkey), is a work in progress by two artists using clothing items as a form of communication and protection, placing them at the core of research work which links design and fashion. Based on the study of different technical, aesthetic and material possibilities, the Brazilian-Turkish artist duo develop a series of dynamic textile surfaces which make the reflexes from electromagnetic fields visible.

THE JURY

The Jury that selected out the three projects was presided over by the former LABoral Director, Rosina Gómez-Baeza, and formed by Benjamin Weil, Chief Curator at LABoral; Ana Botella Díez del Corral, Head of Exhibitions at LABoral; Pedro Soler, former Head of Plataforma Cero at LABoral; Jaime Luis Martín, Director of Castrillón Municipal Patronage of Cultural Activities and art critic; and María del Carmen Carrión, writer and independent curator, Quito.

DATES: 10.02.2012-14.05.2012

ROOM: Sala Nueva

PRODUCTION: LABoral Centro de Arte y Creación Industrial

BITCHEZ WIT DIKZ

FECHAS: 10.02.2012

An instrumental *Hip Hop demo*, of 45 minutes duration, composed by **Bitchez WIT Dikz** for the Lorena Lozano work *Danza Infinita*.

HORA: 20 h.

ESPACIO: Sala Nueva

A Brief History of Cell Culture

By Lorena Lozano, artist, Gijón

There had been attempts to grow cells in scientific laboratories prior to the twentieth century, but the samples always died and scientists ended up believing that it was impossible to keep tissues alive outside of the body. In 1912 Alexis Carrel, a French surgeon from the Rockefeller Institute who had invented a machine for suturing blood vessels, tried to grow a piece of chicken heart tissue and, to the surprise of many, the cells continued to beat as though they were still in the animal's body. Months later, Carrel won the Nobel Prize for his vascular suturing technique. But he became famous for his "immortal chicken heart" and for decades the press maintained that the discovery of cell culture would make humanity illness-free and immortal. Carrel, however, was not interested in immortality for the masses. He saw organ transplants and increased life expectancy as ways of preserving what he considered to be the superior white race. He was a eugenicist and was due to be tried for collaborating with the Nazis when he died. On his death, it was revealed that the famous chicken heart had not stayed alive for very long, and by the time HeLa cells appeared five years later in 1951, cell culture was no longer a medical miracle but a terrifying science fiction scenario tainted by Nazism. Nobody paid much attention to it and it was barely discussed.

The "HeLa" cell line takes its name from the first letters of the name Henrietta Lacks, an African-American woman who was born in Virginia in 1920, lived in Maryland and died at the Johns Hopkins Hospital in that same city at the age of 31. In 1951 Henrietta was diagnosed with cervical cancer, but before starting treatment Doctor George Gey removed cells from the carcinoma for research purposes, without her knowledge or consent. Later, he noticed that the cells from Henrietta's tumour remained alive and continued to grow outside of her body. These were the first laboratory-grown human cells that did not die after a few cell divisions, and they were subsequently used in many experiments. George Gey began to send cells to any scientist who requested them for use in cancer research. Back then, live cells could not be sent by ordinary post as they can today, so he sent them by aeroplane in tubes with just enough growth medium to keep them alive for a short time. Sometimes, the pilots and airhostesses carried them in their shirt pockets to keep them at body temperature. Gey warned the couriers that the cells would reach the point of metastasis, so they had to deliver them to the laboratory as soon as possible. The cells ended up in Texas, India, New York, Amsterdam, and even in the mountains of Chile, in the saddlebags of a mule. Gey helped to set up new laboratories and taught cell culture techniques and methods. The scientific community went as far as to call the cell line "precious

babies”, because it allowed them to carry out experiments that would have been impossible on living beings: they tried out drugs, toxins, radiation, infections, changed their immunity, injected them into other species, etc... The biggest poliomyelitis epidemic in history was one of the factors that led scientists to embark on the mass production of HeLa cells. This was done at Alabama’s Tuskegee Institute, a kind of factory of black scientists – many of them women – who grew HeLa on a mass scale. Paradoxically, the cells of a black woman were used to save the life of millions of Americans, most of whom were white. The Institute began commercialising the cells for research into a cure for Polio, and then started sending them to any scientist who requested them for a fee of ten dollars plus Air Express shipping charges.

By the mid fifties, the cells were totally out of George Gey’s control; companies already controlled the markets and the experiments proliferated unchecked. In 1956, it occurred to Doctor Southam from New York’s Sloan-Kettering Institute for Cancer Research that if the cells were carcinogenic they could be affecting scientists. In view of the possible risks, he started to carry out tests, injecting cells into patients with cancer, healthy prisoners and patients undergoing gynaecological surgery: a total of over six hundred people who were told that they were undergoing routine prevention tests. Many of them died from cancer, even if they had been healthy before the experiment. During the Cold War, some scientists tried subjecting the cells to high doses of radiation in order to study the effects of nuclear bombs, and cosmetic and pharmaceutical companies began using them in their experiments instead of animals. In the sixties, the study of the human genome began, and both American and Russian scientist managed to grow HeLa cells in outer space. The HeLa cell line was used in creating the vaccine against poliomyelitis, in the first hybrid mouse-human cells, and to develop drugs against breast cancer, Parkinson’s and leukaemia. Some 50 tonnes of cellular material are estimated to have been produced from this cell line, and HeLa cells are involved in over 11,000 patents.

In 1996 the geneticist Stanley Gartler was the first to raise the alarm: HeLa cells had infected all the laboratories in the world, even the Russian labs. The only way to control the chaos and stamp out the infection was to carry out genetic tests to identify the HeLa cells, which meant getting DNA samples from Henrietta’s family. Johns Hopkins Hospital contacted the family and blood samples were taken from her children in their own homes, with the excuse that it was simply a preventive cancer screening. Years later, they discovered the real reason behind those blood tests. Until then, Henrietta’s family had been totally unaware of the existence of the line of tissue, and they were surprised to learn that Henrietta’s cells had been taken without her consent, that they were still alive twenty years after her death, and at the scientific advances that they had contributed to and the commercialisation that they were subject to. The actual cells seemed to have become “common scientific property” and public opinion began to wonder about the woman behind the cells. Articles on the origins of the

cells were published citing the name Helen Lane, but it was only when Doctor Gey died in 1971 and his colleagues published a commemorative article on his career in the *Journal of Obstetrics & Gynecology* that Henrietta's real name was published. A few weeks later, Richard Nixon began his anti cancer campaign, allocating 1.5 billion dollars to stamping out the disease within five years, a crusade that many people at the time saw as a way of deflecting attention away from the Vietnam War.

Henrietta's story touches on a whole series of ethical, legal, political and economic issues. It raises questions about whether the donor or her family had consented to the use, commercialisation, production and distribution of her cells, and whether the scientists, universities and governments had acted ethically in these activities and in their interaction with the family. At the time of Henrietta's death – and even to this day – no law or ethical code required doctors to ask permission before removing tissues from a living patient. But the law very clearly stated that performing an autopsy or removing tissue from a dead body without permission was illegal. At first, Henrietta's husband had refused to authorise an autopsy, but Doctor Gey convinced him that it would be a way of helping his children in the future, and he finally accepted. In the experiments subsequently carried out without the patients' consent, neither the Nuremberg code nor the Hippocratic oath¹ were taken into account. These codes are not laws, they are recommendations. It was not common practice to study them at medical schools, and many American researchers claim to be unfamiliar with them. The proliferation of 'life sciences' companies in Europe and North America in the twentieth century brought about legal changes, the extension of patent laws, the implementation of public health policies and the introduction of laws that regulate experiments on humans.

Other social issues relating to race and gender also come into the story, as Henrietta was an African-American woman descended from slaves who worked on tobacco plantations. Some of the stories that the white owners conjured up in those plantations drew on traditional African beliefs in which ghosts are the evil powers that cause illness and death. So in order to control the slaves in the work camps, they told them stories about medical research on black bodies. Some nights the plantation owners – in practices reminiscent of the Ku Klux Klan – even covered themselves in white sheets and swarmed around as though they were the ghosts or spirits of the white doctors. Although this tactic may appear to be cloaked in fantasy, it actually takes us back to the reality of the Johns Hopkins Hospital which, like many other hospitals in the fifties, was built in a poor black neighbourhood. Its back rooms were dilapidated laboratories in which black patients were

¹ The code that has governed experimentation with humans all over the world. Its origins date back to a 1947 trial in which seven Nazi doctors were condemned to death for their experiments on Jews without their consent. This code is much later than the Hippocratic oath, written around 400 BC, which regulates medical ethics and does not require the patient's consent.

operated and experimented on and where iatrogenic illnesses and infections resulting from gynaecological procedures were common. Some writers such as Mary Daly have pointed out the convergence of eugenics and gynaecological practices, beyond the academic connection between the United States and Europe in *Gynaecology, Obstetrics and Psychoanalysis since the 19th century*. Paradoxically, the doctor who treated Henrietta at Johns Hopkins was a pioneer in fertility treatments and produced the first baby born in vitro in the United States.

The scientific community suffered an avalanche of criticism and the discourse generated from these cells continues to this day. In 1991, claiming that all cell division entails genetic changes and that exposure to environmental factors also produces mutations, the evolutionist scientist Leigh Van Valen went as far as to seriously suggest that HeLa cells had become a distinct new species. He even proposed a new name: *Helacyton garrtlei* (cyton from the Greek for “cell” and garrtlei, from Garter, the scientist who had first announced the infection years earlier). Thus, in an attempt to conclude the debate, he separated the HeLa line from the body that it came from: it was no longer human, and the appearance of this new light fuelled fantasies of the administration of bodies, the management of life, immortality and the fountain of eternal youth. Meanwhile, in 2004, in a gesture of dialogue or twinning, the artist Cynthia Verspaget produced an artistic cell line called the *Anarchy Cell Line*, which derived from a combination of HeLa cells and her own cells. Limits, identity and representation; a cluster of dystopian fantasies of science and art.

Nevertheless, in regard to meaning, it is not the prejudices and assumptions that are usually linked to the supposedly objective discourse of science, but the metaphysical dimension that surrounds the birth of HeLa and the death of Henrietta. Actresses and objects of what Foucault calls bio power, a technological device that enters the body and the whole sphere of existence. The body as an organism, in which life and illness are the pathological capital of the species and which attempts to improve the human species through the myth of blood. Since the nineteenth century, science has not been concerned with death, but with life processes. Human beings, seeds, clones, strains, cultures... Life understood as an asset and a manufactured commodity that sets up new interpersonal relationships mediated by genetic investments and based on risk and reward rather than philosophical meaning. How can medical scientific advances change the way we understand ourselves and our ideals of the human being? What does the development of biotechnology mean for the human species in terms of the way we relate to each other and perceive the non-human environment? To what extent do the powerful new ways of manipulating life separate the capacity for production and reproduction of living beings from the environment and the communities that they are historically immersed in?

None of this alters the validity of much of the work carried out with HeLa, but it is worth laying down the facts for the sake of memory.

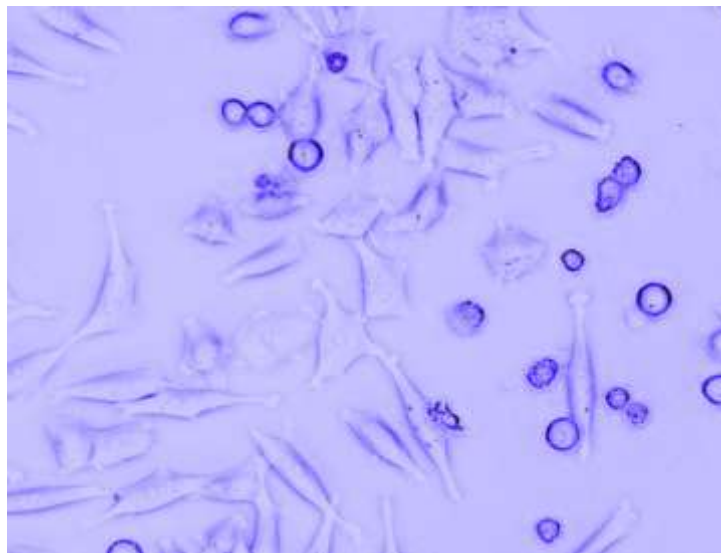
Commemorations: For years, Henrietta's daughter Deborah tried to learn more about her mother and the cells, turning to scientific articles, the tabloid press and medical diagnoses. She collected everything that could contribute to a more accurate story of her mother and shed light on the identity of the woman behind that precious tissue. The story of Henrietta and her family is told in *The Immortal Life of Henrietta Lacks*, a book by the journalist Rebecca Skloot. Doctor Roland Patillo, a scientist from the Atlanta Morehouse School of Medicine, organised *Henrietta Lacks Day* on 11 October 1996, with the presence of her family, in order to honour her contributions to science. As a result, the Henrietta Lacks Health History Museum Foundation was created. In 1999, Rebecca Skloot set up the Henrietta Lacks Foundation and several artists in recent decades have drawn inspiration from and paid tribute to Henrietta Lacks in their works.

Sources:

Skloot, Rebecca. *The Immortal Life of Henrietta Lacks*, 2010.
Curtis, Adam. *Modern Times: The Way of All Flesh*, Documental BBC, London, 1998.
Gold, Michael. *A Conspiracy of Cells: One Woman's Immortal Legacy and the Medical Scandal It Caused*. Albany, New York, State University of New York Press, 1986.
Verspaget, Cynthia: <http://www.wix.com/cynthiav71/artsite> - !
Bowring Finn. *Science, Seeds and Cyborgs, biotechnology and the appropriation of life*, London, Ed. Verso, 2003.



A view of the essay with the dancer Sonia Gómez for the film *Ensayos para una danza infinita*, a part of the Lorena Lozano's installation



Lorena Lozano & Marco Archinti. *HeLa Cells*, 2011



The image of Henrietta Lacks included in this design of Lorena Lozano

The Laboral Foundation

The LABoral Centro de Arte y Creación Industrial Foundation is a cultural body to serve the general interest, as well as the governing body of the art centre. The aims of the Foundation as described in Article 6.1 of the statutes are “to promote and disseminate art and industrial creation through the management of LABoral Centro de Arte y Creación Industrial.”

BOARD OF PATRONS OF LA FUNDACIÓN LA LABORAL. CENTRO DE ARTE Y CREACIÓN INDUSTRIAL

President: Mr. Emilio Marcos Vallaure, representing the Principality of Asturias

First Vicepresident: Mr. Francisco Crabiffosse Cuesta, representing the Principality of Asturias

Second Vicepresident: Nicanor Fernández Álvarez, representing EdP_HC Energía

Members of the Board

The Principality of Asturias, represented by Mr. Carlos López Graña and Mr. Luis Amadeo Canal Fernández Ministry of Culture, represented by Mr. Faustino Díaz Fortuny

Ayuntamiento de Gijón, represented by Mrs. Carmen Moriyón Entrialgo

Autoridad Portuaria de Gijón, represented by Mr. Emilio Menéndez Gómez

Caja de Ahorros de Asturias, represented by César José Menéndez Claverol

Fundación Telefónica, represented by Francisco Serrano Martínez

Benefactor Corporate Members

ALCOA Inespal S.A., represented by Mr. José Ramón Camino de Miguel.

Associated Corporate Members

Dragados S.A., represented by D. Rafael Martín Huertas

FCC Construcción S.A., represented by D. Julio Senador-Gómez Odériz Secretary José Pedreira Menéndez

Collaborators Ministerio de Industria, Turismo y Comercio Emulsa

Collaborators

Emulsa

THE TEAM

Director of Activities: Benjamin Weil
Teléfono: +34 985 130 464
E-mail: benjamín@laboralcentrodearte.org

General Manager: Lucía García Rodríguez
Tel: +34 985 134 397
E-mail: lucia@laboralcentrodearte.org

Head of Exhibitions and Publications: Ana Botella Díez del Corral
Tel: +34 985 330 776
E-mail: anab@laboralcentrodearte.org

Head for General Services: Ana Isabel Menéndez
Tel: +34 985 134 244
E-mail: anai@laboralcentrodearte.org

Head of Communication: Pepa Telenti Alvargonzález*
Mobile: +34 689 436 976 / Tel: +34 985 185 582
E-mail: comunicacion@laboralcentrodearte.org

Education Area: Lucía Arias*
Tel: +34 985 133 924
E-mail: educacion@laboralcentrodearte.org

Assistance to Exhibitions Department: Patricia Villanueva*
Tel: +34 985 131 308
E-mail: exposiciones@laboralcentrodearte.org

fabLAB: David Pello
E-mail: po@laboralcentrodearte.org

Audiovisual Laboratories: Sergio Redruello***
Email: labtv@laboralcentrodearte.org

Mediation Team: Aida Rodríguez**, Elena Álvarez** and Nuria Menéndez**
E-mail: mediacion@laboralcentrodearte.org

Media Library: Alfredo Aracil*
E-mail: mediateca@laboralcentrodearte.org

Secretariat: Lara Fernández** (rrpp@laboralcentrodearte.org) and María Romalde** (produccion@laboralcentrodearte.org)

* Lacera Servicios y mantenimiento

** ISS

*** External collaborators

WHAT IS LABORAL?

LABoral Centro de Arte y Creación Industrial is a space for artistic exchange. It was born with the aim of establishing an alliance between art, design, culture, industry and economic development, and aspires to become a space for interaction and dialogue between art, new technologies and industrial creation. Between its walls, it opens the way to the production, creation and research into the most recent artistic concepts. LABoral Centro de Arte y Creación Industrial is in the old Universidad Laboral as part of the set of projects developed by the Principality of Asturias for its City of Culture. Gijón, Asturias.

LOCATION

LABoral Centro de Arte y Creación Industrial is located in Gijon, Asturias, at around three kilometres from the city centre. Premises originally conceived for vocational training now house the over 14,400 functional square metres that are devoted to the exhibition, research, training and production of new art and creative industries.

ADDRESS: LABoral Centro de Arte y Creación Industrial
Los Prados, 121
33394 Gijón (Asturias)

Getting There

By car: A-8 motorway. Take bypass on arrival to Gijon. Salida (exit) km. 385 Viesques. Follow directions to Hospital Cabueñes. Take third exit at third roundabout.

The Centre has a public car park.

By bus from Gijón

The bus stop for the Centre is “Parada Universidad Laboral”. The bus lines available are the following:

Line 1 Cerillero- Hospital de Cabueñes

Line 2 Rocés- Hospital de Cabueñes

Line 4 Cerillero- Viesques- Hospital de Cabueñes

Line 18 Nuevo Gijón- Hospital de Cabueñes

By plane

Closest airport: Asturias (Castrillón). Around 40 km from the Centre.
A8 motorway, direction Gijón.

OPENING HOURS

Monday, Wednesday, Thursday and Friday, from 10 am to 7 pm

Saturday and Sunday, from noon to 8 pm

Closed every Tuesday (except for public holidays and local holidays)

ADMISSION

General public

€2

Free: Friends of LABoral, <10 years old, journalists, members from ICOM (International Council of Museums)

Days of free admission: All Wednesdays of the year plus 18th May (International Museum Day)

Wednesdays, Saturdays and Sundays on July, August and September
 Weekends after the exhibition's opening

RESOURCES

Plataforma 0_LABoral Production Centre

Platform 0 is a multi-purpose space. It is a centre for production, artistic research, innovation and education. It is a place for implementing ideas and trying out prototypes, with work spaces for experimentation and production with audio, video, light, electronics, processing, movement capture, computer vision and videogames. The intended audience is the local artistic and creative community as well as artists, creators or foreign researchers in residence participating in the exhibitions at LABoral.

fabLAB

Laboratory equipped with digital fabrication machinery providing consultancy and production tools for individual or collective creation, courses and training workshops.

Plat0

Studio set for experimentation and research into expanded performative practices and new audio-visual forms.

Audiovisual Laboratories

Audio and digital video platform, with all the equipment necessary for recording, editing, production and postproduction.

ecoLAB

Located in Patio Sur, ecoLAB explores the potential of crossovers between art, ecology and open electronics.

Media Library/Archive

A place for the investigation, consultation and dissemination of today's art and creative industries. It features the Archive of Asturian Artists, documenting the work of creators born from the 1950s onwards.

Chill-Out

A place for meeting, leisure, active participation and resting.