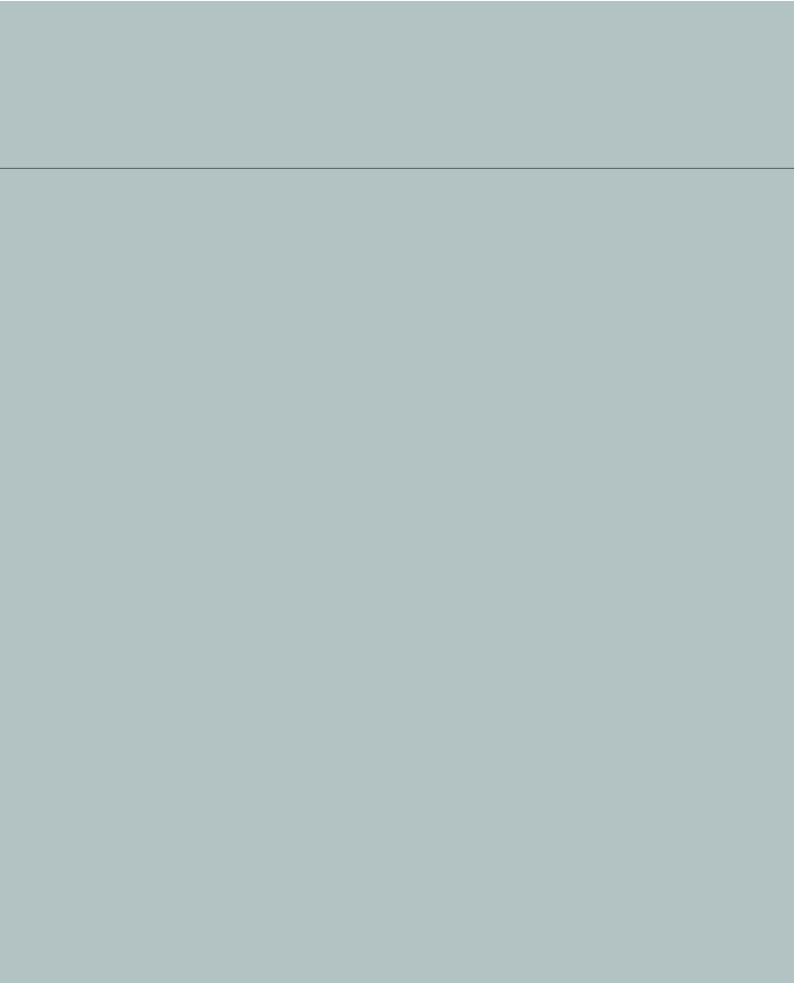
Isamu Noguchi Water Stone 1986



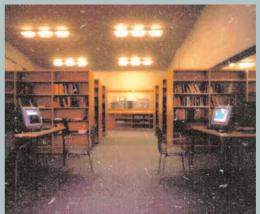
AND EMERGES WITH SUCH A PRECISION SO REMARKABLE THAT IT CANNOT BF CHANCE



INSIDE REPORTING ON 2000/01

WELCOME TO THE DIPC FOUNDATION	7
THE BOARD	9
OUR PATRONS	1 1
HENRICH ROHRER, NOBEL PRIZE PHYSICIST, CELEBRATES THE OPENING OF DIPC	13
JUAN JOSÉ IBARRETXE, PRESIDENT OF THE BASQUE COUNTRY, VISITS THE DIPC FOUNDATION	15
RESEARCH ACTIVITY	19
DIPC PUBLICATIONS 2000/01	21
VISITING RESEARCHERS	31
Our Researchers	39
THE SEMINARS AT DIPC	47
THE WORKSHOPS AT DIPC	55
LECTURES FOR THE GENERAL PURILS	85







WELCOME

TO THE

DIPC FOUNDATION

A CENTER FOR EXCHANGE
AND CREATIVITY BETWEEN
SCIENTISTS FROM THE
WORLD AROUND

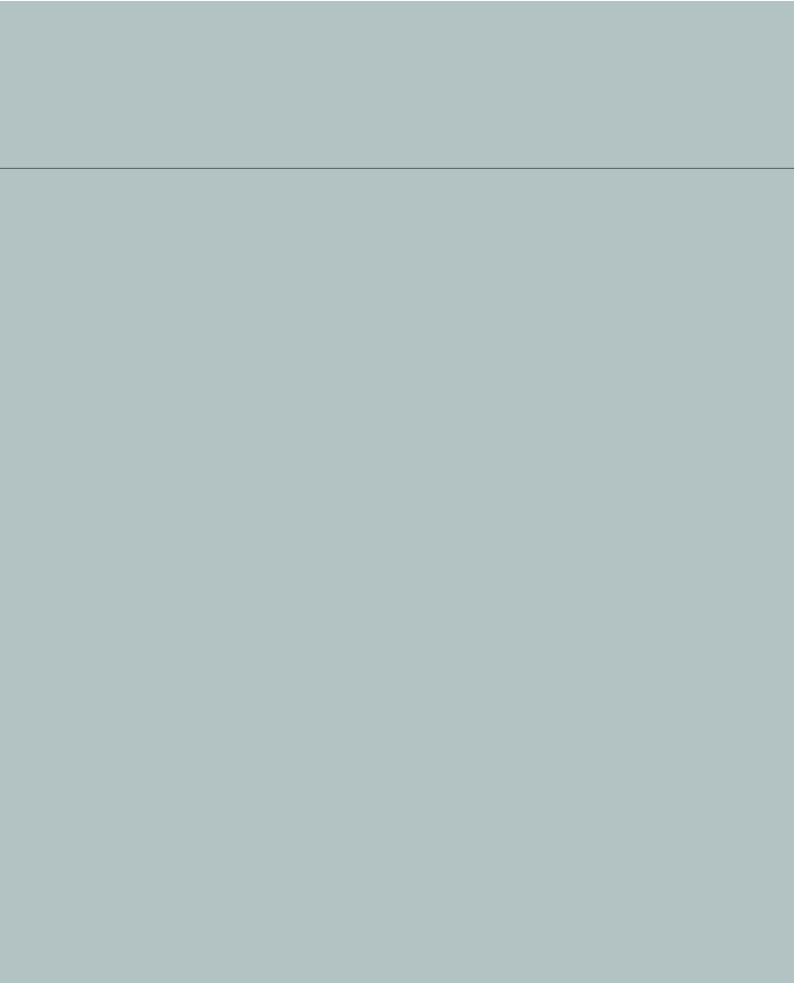
DIPC was inaugurated in April 2000 with the aim of promoting international scientific exchange between physicists primarily, but not excluding the participation of other scientists in interdisciplinary projects.

The Center is located at the San Sebastian campus of the University of the Basque Country, and provides select combination of attractions from sheer academic interest to historical, cultural, gastronomic and picturesque experiences.

Fundamentally dedicated to research, the Center also hosts other forms of scientific endeavor, such as workshops, lectures, seminars and special events for the communication of science to the general public.

DIPC is the first center of its nature in the Basque Country, and it also aims to project the forward-looking, industrious and welcoming nature of the Basque people to its visitors, while providing the opportunity for Basques to access the most advanced scientific knowledge in the world.





THE BOARD

DIPC IS MANAGED BY A
BOARD COMPOSED OF
THE PRESIDENT, THE
GENERAL DIRECTOR AND
THE SECRETARY

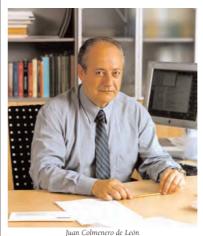
Pedro Miguel Echenique Landiribar is Professor of Condensed Matter Physics at the University of the Basque Country. He obtained his PhD at Cambridge (1976) and Barcelona (1977) and has Honorary degrees from Cambridge (Doctor of Science 1998) and Doctor Honoris Causa from Valladolid (2000). He is a Fellow of the American Physical Society (FAPS) and of the American Association for the Advancement of Science (FAAAS). He holds the Gold Medals of the University of the Basque Country and of the City of San Sebastian.

Juan Colmenero de León is Professor of Condensed Matter Physics at the University of the Basque Country. He obtained his PhD in Physics at the University of Navarra (1979). His research activities are Polymer Physics and Non-Crystalline Materials. He is a member of the Editorial Board of the Journal Colloid & Polymer Science, member of the Scientific Committee of the European Spallation Source Project and Chairman of the Selection Panel of the European Project "Jülich Neutrons for Europe". He has been awarded the "Xabier María de Munibe" Prize in Science & Technology (1998) given by the Basque Parliament and the Euskadi Prize of Research in Science & Technology (2000) given by the Basque Government.

Alberto López Basaguren is Professor of constitutional law. He obtained his degree in political sciences from Universidad Complutense in Madrid and a PhD from the University of the Basque Country. (1990). He furthered his studies in Florence and Bologna (Italy). He continues his research in economic, constitutional and linguistic law and its integration in the European community. He is formerly Secretary General of the University of the Basque Country.



Pedro Miguel Echenique Landiribar



DIPC General Director



Alberto López Basaguren DIPC Secretary



BASQUE GOVERNMENT

DEPARTMENT OF INDUSTRY, COMMERCE AND TOURISM
DEPARTMENT OF EDUCATION, UNIVERSITIES AND RESEARCH

EUSKO JAURLARITZA

INDUSTRIA, MERKATARITZA ETA TURISMO SAILA HEZKUNTZA, UNIBERTSITATE ETA IKERKETA SAILA

GOBIERNO VASCO

DEPARTAMENTO DE INDUSTRIA, COMERCIO Y TURISMO DEPARTAMENTO DE EDUCACIÓN, UNIVERSIDADES E INVESTIGACIÓN



UNIVERSITY OF THE BASQUE COUNTRY

EUSKAL HERRIKO UNIBERSITATEA UNIVERSIDAD DEL PAÍS VASCO



PROVINCIAL AUTHORITY OF GUIPUZCOA

GIPUZKOAKO FORU ALDUNDIA DIPUTACIÓN FORAL DE GIPUZKOA



SAN SEBASTIAN TOWN HALL

DONOSTIAKO UDALA AYUNTAMIENTO DE SAN SEBASTIÁN



К⊔тха





<u>our patrons</u>

THE BOARD OF PATRONS
IS THE PRINCIPAL
GOVERNING BODY OF
THE FOUNDATION

Present Members of the Board

BASQUE GOVERNMENT Anjeles Iztueta Azkue Minister

Jon Barrutia Guenaga Vice Minister

Iñaki Telletxea Fernández Vice Minister of Industry Policy

Joseba Jaureguizar Bilbao
Director of Technology and Innovation

University of the Basque Country Manuel Montero García Rector

Fernando Cossío Mora Vice Rector of Research

PROVINCIAL GOVERNMENT OF GUIPUZCOA Román Sudupe Olaizola President

SAN SEBASTIAN TOWN HALL Odón Elorza González Mayor

KUTXA
Félix Ares de Blas
General Director
Miramon.KutxaEspacio de la Ciencia

IBERDROLA

José Antonio Garrido Martínez

Vice President



Patrons and Board Members at the celebration of the opening of DIPC. From left to right: Alberto López Basaguren, Odón Elorza, Manuel Montero, Román Sudupe, Inaxio Oliveri, Pedro Miguel Echenique, Juan Colmenero, Joseba Jaureguizar, Félix Ares, Unai Ugalde, Ander Gurrutxaga, Javier Zúñiga

Former Members of the Board

BASQUE GOVERNMENT
Inaxio Oliveri
Former Minister

Ander Gurrutxaga Abad Former Vice Minister

Unai Ugalde Martínez
Former Director of Science Policy

University of the Basque Country

Pello Salaburu Etxeberria Former Rector

Javier Zúñiga Lagares
Former Vice Rector of Research



SMALL IS BEAUTIFUL AND POWERFUL

PROF. HENRICH ROHRER CELEBRATES THE OPENING OF DIPC

APRIL 26, 2000

"The purpose of an international center is to bring science together from different cultures, of different thinking and that is one of the very promising ways of approaching solutions to the complex issues of the future. Nano-science, nano-technology I think is the one type of technology and science which is purely interdisciplinary"...

"One may ask why should small be beautiful and powerful. Nowadays everybody wants to be big; to be important; you compare, you merge, you take over. A new idea comes up in a brain, not in a company. I think there are many things you can see that start small"...

"Small is wonderful because small brings completely new opportunities and completely new possibilities. Small is wonderful because small practically always means faster, small means large numbers, small but large numbers. Small means sustainable. I think that is very clear; small is sustainable. If you use very little material, you can make more out of it. Small very often means more sensitive...on a nanometre scale, it doesn't make sense any more to talk about physics, or chemistry, or biology. It's all the same. I think that's one of the most interesting aspects that makes the magic of small, the beauty of small and the power of small."



WELCOMES

JUAN JOSÉ IBARRETXE PRESIDENT OF THE BASQUE COUNTRY

DECEMBER 2001

The President expressed his gratitude to all institutions taking part in raising a basic research center such as DIPC in the Basque Country. He also expresses his satisfaction for the degree of compromise and strategic foresight of enterprises such as Kutxa and Iberdrola, in supporting this project which he considers to be important for Science and Technology in the Basque Country, as well as to its outward image.

Regarding economic development, the president refers to the opening of a new phase, in which the debts incurred in throughout the 80's decade is being levelled, and the next challenge on innovation is coming into focus. The expansion of new technologies is the subject of our attention at this time, alongside the new knowledge society and research development.

The President indicates that the target for 2004 will be to reach a level of spending in R+D+I activities of 1.7% of GDP. This budgetary effort must be accompanied of an evaluation of the investment and results derived from our efforts, as money must be well spent.

He finally argues that public institutions involved in DIPC are extraordinarily satisfied and proud of the results which are being attained. ■



Scanning tunneling electron microscope is shown in operation to President Ibarretxe.

PRESIDENTIAL VISIT



President Ibarretxe greets researchers at DIPC.



Exchanging views.