

## THE LIFE IN PHYSICS 1996 - PRESENT

*Jean Dibble*

### **Everyday Life**

“The Life In Physics” is a response to the developments in physics since the turn of the 20<sup>th</sup> century and the consequent shift in our understanding of the workings of the world. This group of images is also a response to the difficulty the layperson has in understanding the new physics. Unlike the straightforward Newtonian paradigm, the new physics defies normal intuition: the sixth dimension, for instance, is accessible only through mathematics. Yet the new physics still describes the universe in which we live.

The grand issues treated in the new physics have served as a general inspiration for the creation of these images; but, more immediately, the images are expressions of the understanding and conviction that the mundane and the forgettable reflect and are governed by the same universal laws as those expressed in the elegant and complex diagrams and equations of physicists. It is this integration of the mundane and the abstract that I have chosen to explore in this body of work, and the visual, formal relationships between physics diagrams and images of everyday life are employed here as a metaphor that I hope will inspire the viewer with the recognition that the universe is inherent in all that humanity experiences.

### **Antiquities**

Juxtaposing Greek antiquities with 20<sup>th</sup> century physics diagrams and equations is my way of exploring a conversation we have with the past. Humanity’s understanding of the workings of the world and the universe is very different now from what it was in ancient Greece, but both then and now a small intelligentsia were equally certain of the validity of their perceptions.

This group of images is in response to both the incompatibility and the harmony of the ancient and modern views. Greek art and architecture reflect direct access to the world around, an intuitive view, describable in concrete, demonstrable terms, while the New Physics defies normal intuition: it describes the world in multiple dimensions that are accessible only through mathematics. Both describe the world and the universe, but each is the product of a unique chronological, ideological, and interpretive envi-

ronment. I have to consider the meaning moderns put on the bits of the past that are preserved in Greece; we create a romantic illusion based upon bleached and weathered stone while ignoring the reality of the impact of time on the antiquities. The scale and the power of the architecture are preserved, but the experience that the people who made the works had at their own time is not part of our romantic imaginings.

Through the juxtaposition of visual expressions of these two world-views—sometimes clashing and sometimes magically, formally integrated—a paradoxical relationship of integration and utter incompatibility presents itself. Modern viewers can be seduced by the elegance of both ancient Greek art and the New Physics, but in the end they can only experience antiquity as isolated fragments of an unsynthesized whole. And while on the one-hand the ancient Greeks were governed by the same laws as those expressed in the complex diagrams and equations of contemporary physicists, on the other hand modern viewers and cultures inscribe their own meaning on antiquity, as surely as physics diagrams have here been inscribed on ancient creations. We are connected to the ancient Greeks through humanity's genetic drive to explain the world, but this past can never be truly accessed, just co-opted as metaphor. A metaphor we use for our own advantage.

## **Now**

With the advent of the 21<sup>st</sup> century, we are experiencing another extraordinary set of developments in physics, notably the confirming discovery of the Higgs Boson particle. Not only will new understandings arise, new ways of using physics in daily life will be invented. The speed with which a seemingly esoteric science directly affects humanity will surely increase. However, the division expressed by the written language of physics between the specialist physicist and the rest of humanity will widen.

## THE LIFE IN PHYSICS—JESSE'S RED KNOT

2012



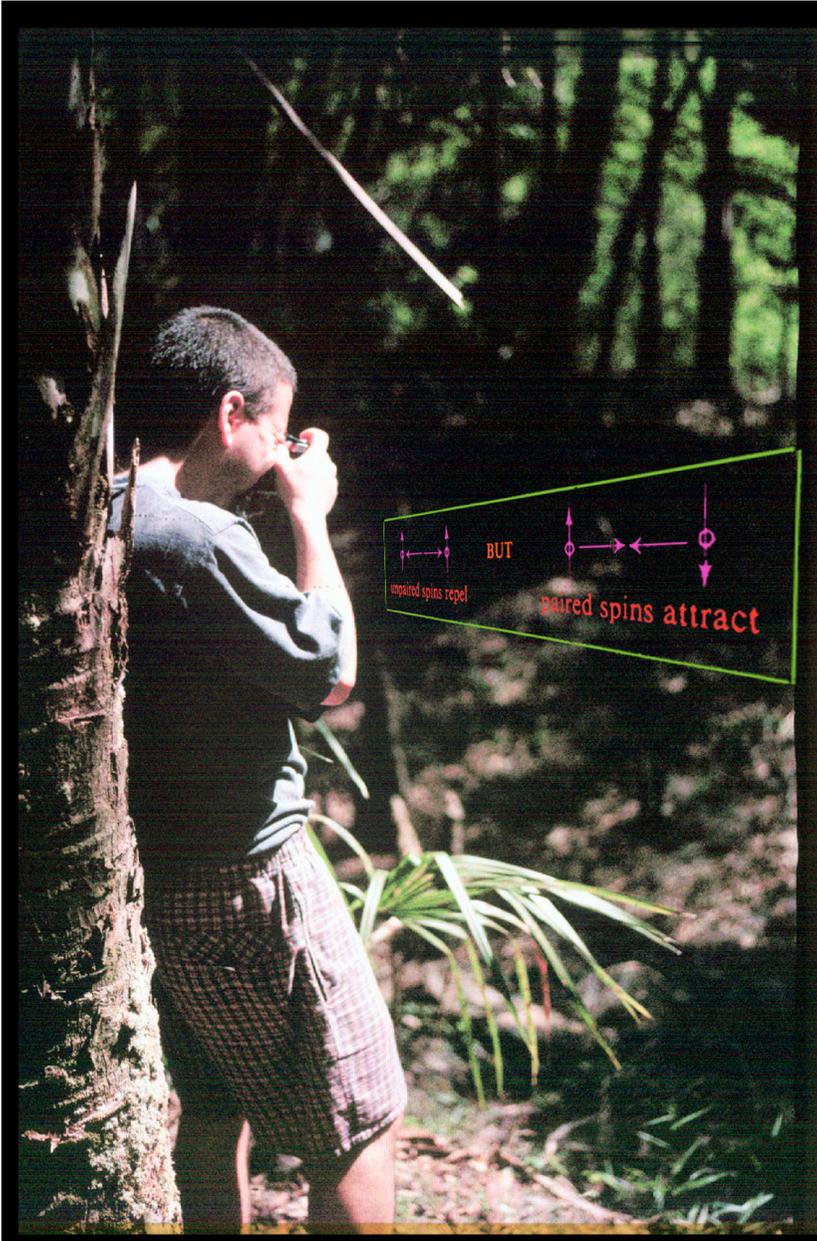
# THE LIFE IN PHYSICS—LILACS CANONICA

2012



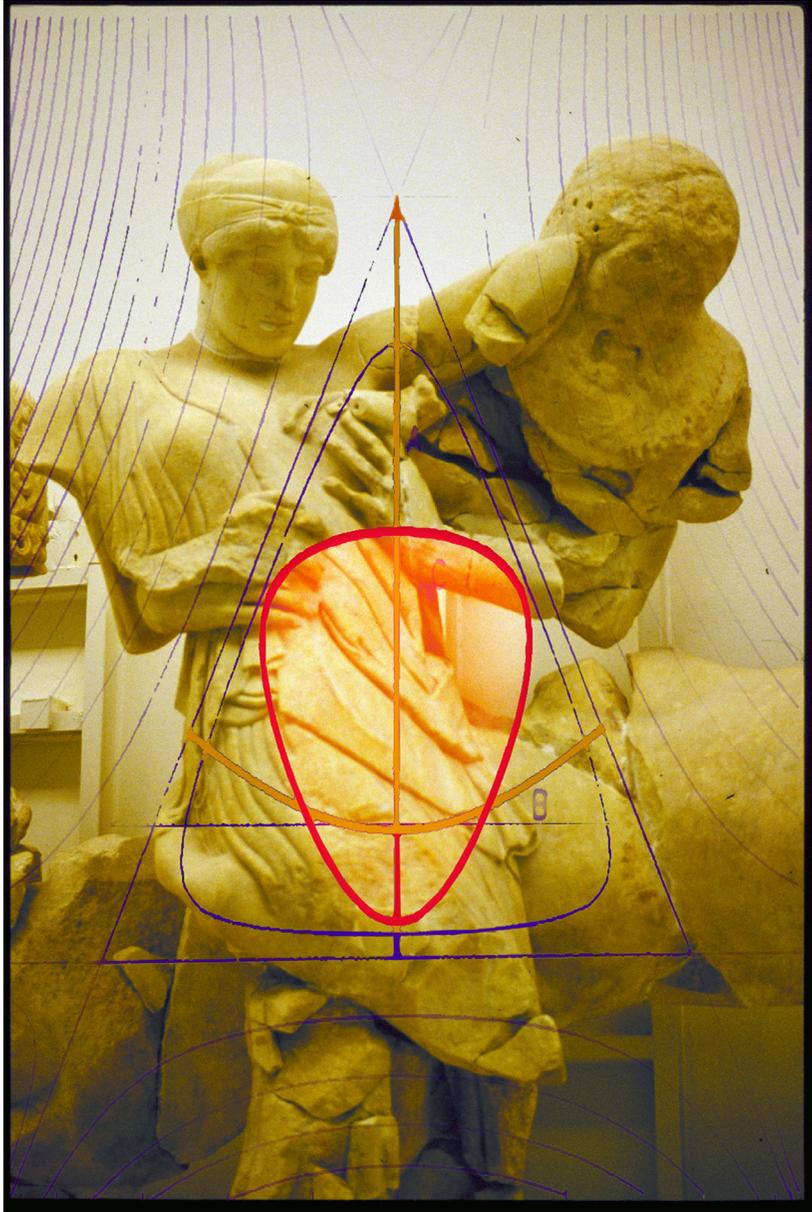
# THE LIFE IN PHYSICS—MAT IN FOREST

1996



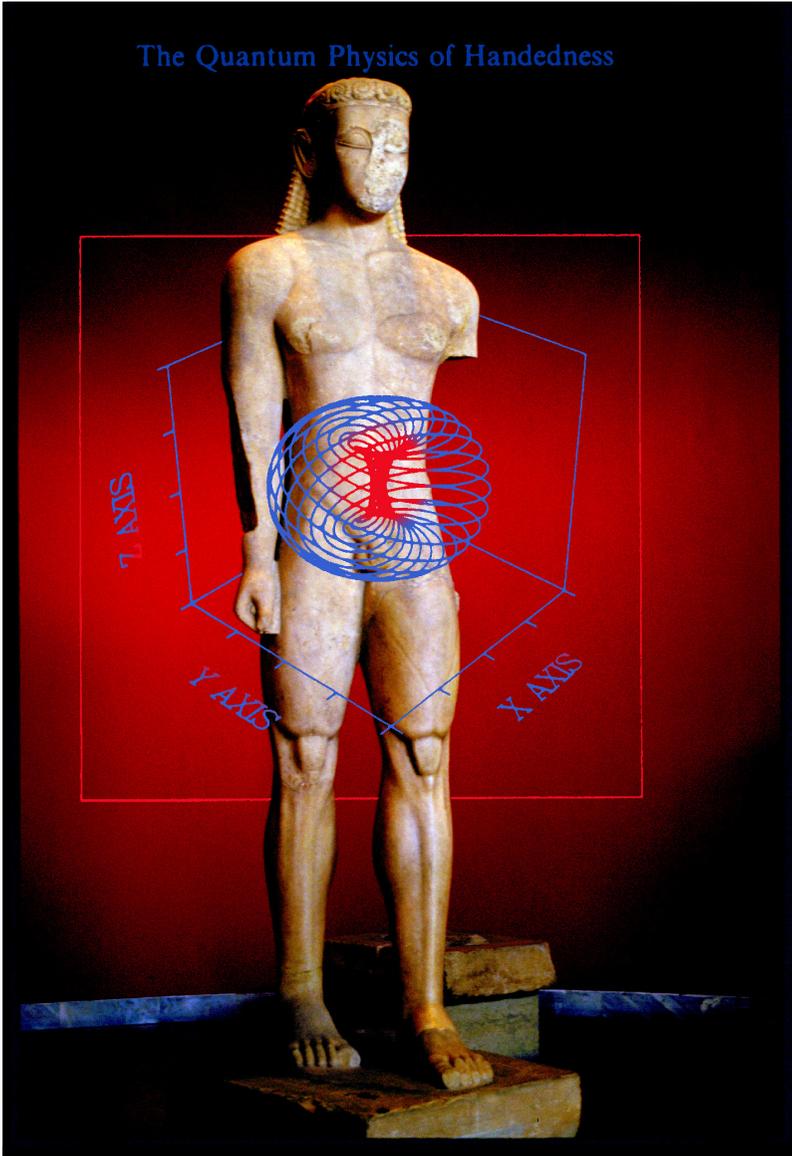
THE LIFE IN PHYSICS—RAPE OF PARTHENOS

2009



# THE LIFE IN PHYSICS—RED KOUROS

2002



# THE LIFE IN PHYSICS—RIEMANN'S BACK

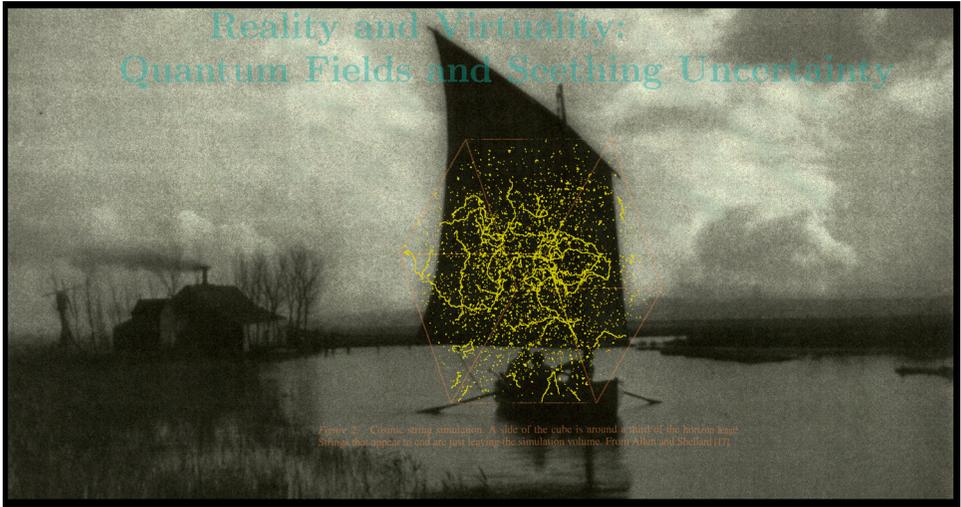
2012



Figure 14.1 A random triangulation of a Riemann surface. Each triangle is dual to a three-vertex insertion of the matrix model.

## THE LIFE IN PHYSICS—SAIL FULL OF STRINGS

2012



# THE LIFE IN PHYSICS—TERRY'S TIMELIKE CURVES

2012

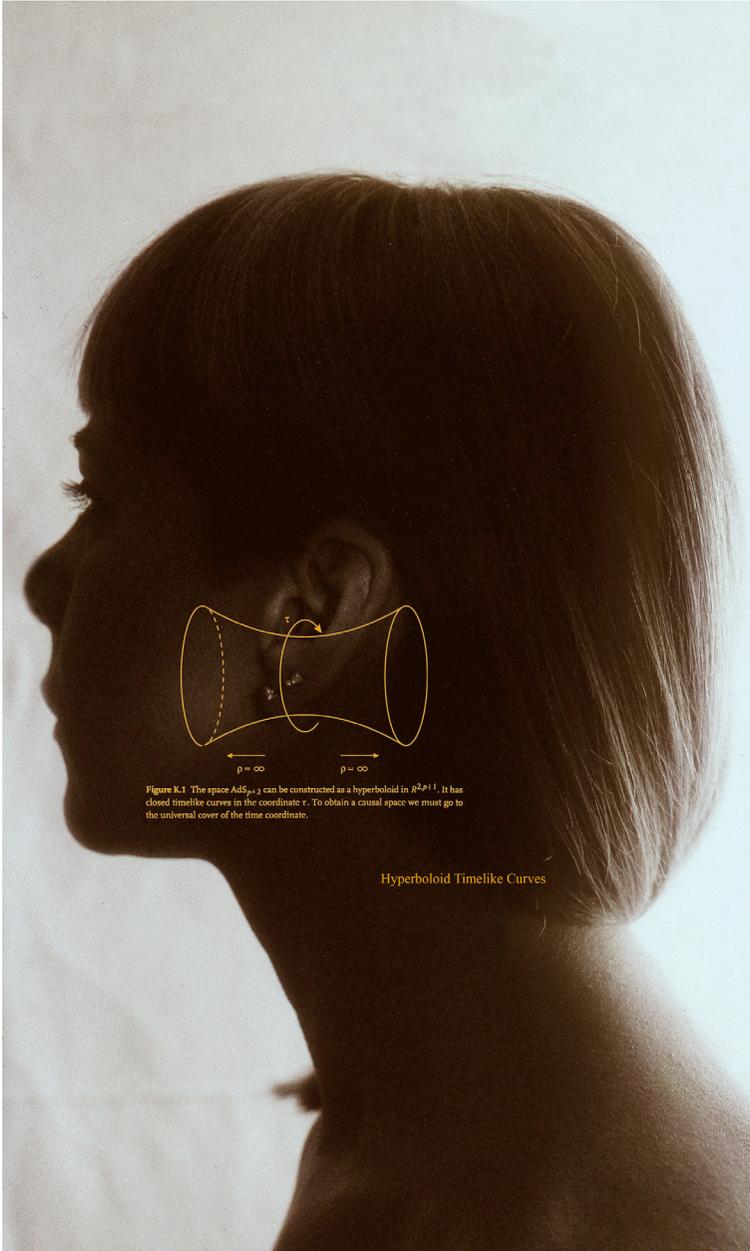


Figure K.1 The space  $AdS_{p+2}$  can be constructed as a hyperboloid in  $\mathbb{R}^{2,p+1}$ . It has closed timelike curves in the coordinate  $r$ . To obtain a causal space we must go to the universal cover of the time coordinate.

Hyperboloid Timelike Curves