Q&A Philip Glass

Relativistic composer

Einstein on the Beach, an opera by composer Philip Glass and theatre director Robert Wilson, changed ideas about what opera could do when it was first staged in 1976. As a new production opens at the Barbican Theatre in London, Glass talks about the work's gestation and evolution.

You have written operas on Galileo Galilei and Johannes Kepler as well as Albert Einstein. Are you drawn to science?

Science has been a hobby of mine all my life. I took a college course in mathematics, but realized I didn't have the aptitude for science. But it gave me an appreciation for the skills of the scientist. I see scientists as poets, who interpret the world using mathematics. Their visions are personal. Einstein said he would see and understand something, and then figure out the mathematics. Scientists themselves say that there is an aesthetic element to what they do. I see the world as an event, a beautiful unfolding of natural laws. So aesthetics are not confined to artists. Whether you attribute all this to a divine being, as Kepler and Galileo did, or to laws of nature, it doesn't matter.

How did *Einstein on the Beach* come about?

Bob Wilson and I wanted to do something together, but we didn't have a name or an idea. We began with the structure — dividing the piece into sections and interludes. And we decided it should be a portrait of a person everyone knew. That way, we didn't need to tell a story — everyone could make up their own. Bob suggested Adolf Hitler, I wanted Mahatma Gandhi, so that didn't work. But

then we came up with Einstein. When I was a boy I had read all about him. We all knew who he was because of his theories of relativity.

Bob began using images from Einstein's work: trains moving, clocks, spaceships.

But you weren't concerned about a conventional plot?

No, we didn't have a plot. The libretto was mostly contributed by the performers. And the story is what would be perceived by the spectator — we gave them everything they needed to make it up. This was the 1970s, and we were all influenced by the ideas of choreographer Merce Cunningham, composer John Cage and artist Marcel Duchamp — that the function of interpretation is a creative one, and the creativity comes from the audience.

What about the structure: five hours, no interval, the audience encouraged to come and go?

Bob would joke that, if you go to sleep, don't worry — when you wake up, the opera will still be going on. This approach was familiar to me from Kathakali dance-drama in India,

Einstein on the Beach

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which might start in the evening and finish in the morning.

Did you draw on the popular myth of Einstein rather than offer straight biography?

That is exactly right. Einstein was the hanger that we hung the clothes on. We encouraged people to personalize his story — to find in it what was meaningful to them. In the 1940s, there were a lot of popular books explaining relativity. Ordinary people wanted to know what it meant, and Einstein was able to find ways of describing it. Talking about the curvature of space-time creating gravity — that is a complex idea, but if you think about a ball rolling round a hole, it makes it easier to understand.

What ideas informed the music?

I had become interested in the rhythmic structure of Indian classical music. It is binary, but based on rhythmic patterns of twos and threes rather than ones and zeros. I've had a long and fruitful association with musician Ravi Shankar, and by the time I was working on *Einstein* I had been developing a whole musical language based on this for ten years. I was also looking for a way to integrate harmonic and rhythmic structure — a kind of unified theory of harmony and rhythm. *Einstein* was an exposition of those ideas.

Did it work for audiences?

We first put it on in Europe. We had some income — not enough, but we managed. In the United States, it was staged at the New York Metropolitan Opera and sold out overnight. So we were successful, and totally broke. We had a great time.

What has changed in the 36 years since then?

The technology of the theatre has changed dramatically. Lighting instruments are much more advanced, and the movement of scenery can be computer-controlled. Before, you couldn't get enough light in the room to really make the imagery happen. When I walked into the recent rehearsals in Ann Arbor, Michigan, I thought, "Oh my God, this is the image Bob was trying to create." The performances of the musicians and singers are much more refined and accurate than they were back then, and are far closer to what I composed. Bob's skill at moving people has matured too — he has become a master of his language. So the message is there in bold relief.

And what is the message?

I'm not going to tell you that! The creative activity of the audience is something I can't do for them. ■

INTERVIEW BY PHILIP BALL

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