FLATLAND

the theatrical pitch, containing:

the story
the politics
the science
the theatricality
the staging
the choruses
the text

FLATLAND: story

The novella FLATLAND: A ROMANCE OF MANY DIMENSIONS was published by the British amateur mathematician Edwin A. Abbott in 1884.

It tells the story of a two-dimensional world whose inhabitants are geometrical figures, narrated by one "A. Square." Status in this rigidly hierarchical society is conveyed by the number of sides a polygon has. The lowest social class (the women) are Straight Lines – Triangles and Squares are a step up, and the high priests and ruling class are Circles.

The Square, in describing his world, gives a creepy allegory of a class-based society similar to Victorian England – strictly governed, stratified, and so narrow in its worldview that it cannot imagine a world beyond two dimensions.

One day, the Square is visited by the Sphere, a three-dimensional creature from the distant realm of Spaceland. The Square refuses to believe in the existence of a third dimension. The Sphere takes the Square to Spaceland, where he has to believe the evidence of his eyes.

Upon returning to Flatland, the Square attempts to proclaim the "Gospel of the Three Dimensions" and liberate his countrymen from their limited existence. His fellow polygons, who can't believe it without seeing it, throw him into prison for life as a heretic and madman. The Square reveals that he's written this entire book from jail. The story ends as a cautionary tale about what happens when a society isn't ready to accept new truths, scientific or otherwise.

FLATLAND: politics

We find ourselves at an interesting time as a nation, when we are on the point of abandoning many of our liberties voluntarily, if not having done so already. As a political theater artist, I want to make work which plays directly on these themes, but without either preaching to the choir or screaming at the conservatives. This text does neither.

FLATLAND doesn't just encourage us to open our minds – it forces us to realize in what ways they are closed, and to have understanding and respect for other people whose worldviews are not the same as ours. Now, more than ever, we have to talk about the importance of believing in things we can't see.

FLATLAND: science

Because FLATLAND deals with geometry, it might be eligible for a grant from the Sloan Foundation's program for the Public Understanding of Science and Technology: (http://www.sloan.org/bios/edu_public_2007.shtml#theater)

I have been looking for a Sloan-able project for awhile, and think this one has a chance of winning the committee's interest. FLATLAND is a very popular text among mathematicians. Abbott's personified polygons make geometry easy to understand – and the politics of his text, encouraging the free and open sharing of information, are exactly the values that the scientific and engineering community wants to encourage.

Although I think this play can be staged on a very low-budget footing from a technical point of view, the prospect of a large external source of funding is never a negative. Furthermore, because the material in the play is mathematical and educational, the show would have interest for school groups.

FLATLAND: theatricality

FLATLAND is already a successful book, and has been made into a number of animated movies. I am obsessed with the idea that it must, and should, be a play with movement.

The theatrical presentation of FLATLAND could give the audience the experience of inhabiting a world of two dimensions as well as watching one – an experience as yet only briefly tried by any of FLATLAND's many readers.

FLATLAND invites the reader to pretend to be in a two-dimensional world on its very first page:
"Place a penny on the middle of one of your tables in space, and leaning over it, look down upon it. It will appear a circle. But now, drawing back to the edge of the table, gradually lower your eye...and when you have placed your eye exactly on the ede of the table (so that you are, as it were, actually a Flatlander) the penny will then have ceased to appear oval at all, and will have become, so far as you can see, a straight line."

I participated in that thought experiment the first time I read the book, when I was eleven (and beginning geometry.) It blew my mind. I want to give an audience, at least in part, the experience of being inside a living, moving two-dimensional world.

There are many ways this could happen, depending on budget, space, site, cast, and the work of the designers – and part of the reason that I want to start workshopping now is to explore them. Here are some guesses.

FLATLAND: staging

I think that one representation of a two-dimensional world would grow, not to be too cute about it, flat. Since the entire story is told in reminiscence, the Square, our narrator, can navigate many realms of memory and perception. This gives us the chance to show off all the different means by which theater can portray another world.

Like a physics teacher who uses a Slinky, a piece of fabric, and a glass of water as different models of the space-time continuum (yes, very Star Trek), scientific concepts are best demonstrated in many ways.

The show would begin with the audience in traditional seating, watching methods where the actors, as narrators, do not attempt to themselves portray the geometric shapes, such as these:

- One actor and a large chalkboard.
- Four actors and four easels, and markers.
- Actors holding shadow puppets, sticks, or large cutout shapes.
- Lightboxes with cutouts. Animation and projection. Lighting instruments with gels on them – even in the simplest sense, such as a flashlight with something taped over it – and actors manipulating them.

It would progress to non-traditional seating (and the audience moving from one room to another, if possible – a large warehouse with indoor and outdoor spaces would be ideal) with the actors as actors, not narrators, portraying the Polygons themselves:

- Actors standing next to one another. (and the audience also stacked in that line?)
- Actors stacked on top of each other.
- Actors lying on the floor and the audience looking down on them.
- Actors above the audience, on a Plexiglass panel.
- Actors holding pieces of rope or sticks as the line segments.
- Actors dressed in black except for white tape on their arms, moving freely with their arms as the line segments of the Polygons, and the audience above them, looking down from a balcony (I think this would be the best method for scenes like the battles of the Color Rebellion)

Flatland: choruses

Not every representation of the Polygons has to be literal, but some ought to be. It is easy to see how one person can be a triangle – but a hexagon? A dodecahedron? I think of actors holding hands, or climbing over each other, in geometric and acrobatic ways – I think of a collective working to create an image and a narrative. I think of the chorus.

I have been working for eight years on different methods of using choruses in theater, from traditional (choreographed) to experimental (improvised), and I think that the principle of choral casting can aid this text greatly. Rather than assigning one particular actor to one part, all the actors are chorally connected in the responsibility of enacting the story. Imagine one narrator and the rest of the chorus enacting his or her story – and that fluidly changing into a choral narrator who is formed of four people to make a Square. Lines make a polygon. Individual actors make a chorus.

Flatland: text

The text is available freely online at http://www.ibiblio.org/eldritch/eaa/F16.HTM, and published in many editions. Luckily, its copyright has expired, which (I believe) would allow for free adaptation.

It goes back and forth freely between narration and dialogue, a style which I would want to maintain. The last workshop I did with Jessica Wallenfels in Portland, in which she used her methods of using text in dance in combination with my choral movement, gave me a lot of hope for FLATLAND. I don't think that one actor does all the narration, or always plays the Square. The story and the text are collectively told by the ensemble.

(The Stranger referred to below is the Sphere, from the Land of Three Dimensions.)

I began to approach the Stranger with the intention of taking a nearer view and of bidding him be seated: but his appearance struck me dumb and motionless with astonishment. The thought flashed across me that I might have before me a burglar or cut-throat, some monstrous Irregular Isosceles, who, by feigning the voice of a Circle, had obtained admission somehow into the house, and was now preparing to stab me with his acute angle.

Desperate with fear, I rushed forward with an unceremonious, "You must permit me, Sir --" and felt him.

My Wife was right. There was not the trace of an angle, not the slightest roughness or inequality: never in my life had I met with a more perfect Circle. He remained motionless while I walked around him, beginning from his eye and returning to it again. Circular he was throughout, a perfectly satisfactory Circle; there could not be a doubt of it.

Stranger. Have you felt me enough by this time? Are you not introduced to me yet?

Square. Most illustrious Sir, excuse my awkwardness, which arises not from ignorance of the usages of polite society, but from a little surprise and nervousness, consequent on this somewhat unexpected visit. And I beseech you to reveal my indiscretion to no one, and especially not to my Wife. But before your Lordship enters into further communications, would he deign to satisfy the curiosity of one who would gladly know whence his visitor came?

Stranger. From Space, from Space, Sir: whence else?

Square. Pardon me, my Lord, but is not your Lordship already in Space, your Lordship and his humble servant, even at this moment?

Stranger. Pooh! what do you know of Space? Define Space.

Square. Space, my Lord, is height and breadth indefinitely prolonged.

Stranger. Exactly: you see you do not even know what Space is. You think it is of Two Dimensions only; but I have come to announce to you a Third--height, breadth, and length.

Square. Your Lordship is pleased to be merry. We also speak of length and height, or breadth and thickness, thus denoting Two Dimensions by four names.

Stranger. But I mean not only three names, but Three Dimensions.

Square. Would your Lordship indicate or explain to me in what direction is the Third Dimension, unknown to me?

Stranger. I came from it. It is up above and down below.

Square. My Lord means seemingly that it is Northward and Southward.

Stranger. I mean nothing of the kind. I mean a direction in which you cannot look, because you have no eye in your side.

Square. Pardon me, my Lord, a moment's inspection will convince your Lordship that I have a perfectly luminary at the juncture of my two sides.

Stranger. Yes: but in order to see into Space you ought to have an eye, not on your Perimeter, but on your side, that is, on what you would probably call your inside; but we in Spaceland should call it your side.

Square. An eye in my inside! An eye in my stomach! Your Lordship jests.

Stranger. I am in no jesting humour. I tell you that I come from Space, or, since you will not understand what Space means, from the Land of Three Dimensions whence I but lately looked down upon your Plane which you call Space forsooth. From that position of advantage I discerned all that you speak of as solid (by which you mean "enclosed on four sides"), your houses, your churches, your very chests and safes, yes even your insides and stomachs, all lying open and exposed to my view.

Square. Such assertions are easily made, my Lord.

Stranger. But not easily proved, you mean. But I mean to prove mine.