

arcola
energy

Dr Ben Todd, Executive Director, Arcola Theatre
Greening London's theatre: Key industry Leader's breakfast
21st January 2008

Good morning. Thank you to the Mayor and project team for inviting me to speak to you about Arcola Theatre's own Greening Theatre initiative – Arcola Energy.

As Executive Director of Arcola Theatre, somewhat unusually, I share responsibility for Arcola's well-being with 2 other senior managers - the founders Artistic Director Mehmet Ergen and Executive Producer Leyla Nazli. Within this team I focus on the creation of a sustainable and versatile system of management to facilitate the multitude of projects which Mehmet and Leyla cook-up, along with a few of my own. In one-way or another, Environmental Sustainability has become core to the attainment of most of my objectives for Arcola.



Before getting too involved. A quick look at last year and a reminder of what we must better...

This is Cathy Tyson giving a reading at the launch of Arcola Energy last July.

She is lit by low energy lighting which uses about a 10th the power of conventional theatre lighting.

The electricity for the lighting is supplied by the Fuel Cell in the background which is generating electricity from Hydrogen, on stage, with the sole waste product being potable water.

A partnership project. White Light and Stage Electrics provided the lights and the Fuel Cell was arranged by the London Hydrogen Partnership a GLA project.

RISK

- H - History 3 min
- P - Philosophy 3 min
- A - Action 4 min

Ben Todd, Arcola Energy, 21 January 2007

That was the safe bit. Now I am going to take a risk and give an historical and philosophical overview before getting to the point. I hope that this will tell you more about Arcola Energy than a simple description.

Thus this presentation should run as follows:

3 minutes of History, 4 minutes of philosophy, 4 minutes of action. In case you miss the distinction, I have tagged each slide with an H, P or A accordingly.

H1 - ARCOLA THEATRE

Founded 2000, Hackney, Light bulb factory

160 seat & 2 x 60 seat studio theatres

Adventurous & High Calibre.



Ben Todd, Arcola Energy, 21 January 2007

First three slides on the theatre. In case you don't know Arcola.

Founded in 2000, in Dalston, Hackney in what is generally referred to as being a former clothes factory, but was in fact originally a Light bulb factory.

There are 3 studios – one with 160 seats and 2 with 60 seats.

Arcola very rapidly gained and has since maintained a reputation for Adventurous & High Calibre programming, thus winning loads of awards: Peter Brooke, Time Out, LBC, Independent. Programming is writer focused, with lots of new writing from established and emerging writers along with new takes on the classics.

Some alumni include:

Bill Gaskill, Max Stafford Clark, Frank McGuinness, Timberlake Wertenbaker, Michael Pennington

David Farr, Dominic Dromgoole, Eric Schlosser, Rebecca Lenkiewicz

Glyn Maxwell, our own Leyla Nazli, Serdar Bilis

H2 - ARCOLA THEATRE

Mehmet Ergen (Artistic Director) – Credit Card

Leyla Nazli (Executive Producer) - Savings



Ben Todd, Arcola Energy, 21 January 2007

Where did it come from? It is still young enough to be directly influenced by the earliest days...

Founded by Mehmet Ergen, the present Artistic Director and Leyla Nazli the current Executive Producer. Mehmet previously founded Southwark Playhouse, back in the days before Tate Modern. Both are immigrants to London from Turkey. Something which any of you who have lived abroad will know is of significance beyond box-ticking brownie points and Daily Mail prejudice.

The first picture on this slide is of the bar and entrance to Studio 1 shortly before opening. Created using personal savings and credit cards there were no feasibility studies or consultants, or two stage funding applications involved in the conversion, just a lot of volunteers and black paint. Early shows were often lit by candles because of a shortage of stage lights.

The second picture is of the get-in for our production of Lysistata 5 years later. The designer wanted cars on stage, so we called our mechanic and he brought some. That is the front door of the theatre, the cars were dragged across the bar, up the stairs and into the studio by a team of volunteers. That is me at the back trying to avoid bashing our shiny new doors.

These 2 pictures I hope demonstrate what we have tried to do as we develop Arcola – build a venue and organisation of international standing whilst retaining the sense of anything-possible, devil-may-care which has made Arcola so successful originally.

H3 - ARCOLA THEATRE

Youth Theatre / 60+ Drama / Technical Training

Film / Writers Group / Ala-Turka

Identity (Black) Drama School / Volunteering



Ben Todd, Arcola Energy, 21 January 2007

Finally, on theatre. The community. Crucial.

For Arcola, not just a department somewhere, but the personal friends and trusted colleagues of senior management.

Outstanding community links were formed initially through poverty, but are now preserved by design.

Keeps us real. Keeps everyone teaching & learning. Provides trusted casual staff and skilled local contractors. Increases ROI for funders.

H4 - ENERGY

10 Years in Sustainability

Cambridge University & Rolls-Royce: PhD Fuel Cells

Synnogy & Johnson Matthey: Consultant, Energy



$$J_i = -D_i \nabla n_i + x_i \delta_i J - x_i \gamma_i \left(\frac{n B_0}{\eta} \right) \nabla p$$



Rolls-Royce



Ben Todd, Arcola Energy, 21 January 2007

Finally for history, one slide on energy. Whilst Mehmet and Leyla were carving Arcola a niche in British theatre, I was in school.

I am an engineer, by habit and by training. My specialist subject area is clean energy, specifically Fuel Cells. And I have spent 10 years in the field. Through the wonders of the State Education System, I got in to Cambridge. As a result, between my degree and PhD there, where I worked with Rolls-Royce on the design of their industrial-scale Fuel Cell System, and associated placements/scholarships/short-term contracts I have had one of the finest educations the world can offer - working alongside some of the greatest living engineers.

Since then I have kept up-to-date working a day-a-week for the leading fuel cells market analysis company, Fuel Cell Today, a subsidiary of precious metals giant Johnson Matthey. Thus Arcola continues to have access to world class insight into sustainability challenges, technologies, policies, and progress.

Aside from equations, at Rolls-Royce I learned a crucial lesson. With all of their resources their approach to delivering fuel cell systems was to analyse every aspect of the proposed system and tweak it so that minimal new technology was required and as many of the interesting thermo-fluidic and thermo-chemical processes as possible were avoided - except in narrow areas, our knowledge of the physical world does not extend much beyond Masters level and extending it takes a monumental amount of time and effort. Thus, if we want to meet the targets Ken has described we cannot sit on our backsides waiting for science to deliver a wonder pill – we need to move, in ways we already understand. Now.

P1 - CREATIVITY

- Artistic - Shakespeare
- Entrepreneurial - Branson
- Societal - Ghandi
- Technical - Einstein

Da Vinci

Dyson

Zuckerberg

Ben Todd, Arcola Energy, 21 January 2007

History Done. Now to philosophy. In haste I must butcher things and mix them up, making the material unworthy of the term. Nonetheless, there are some key ideas and observations which drive this project...

The broad understanding of creativity is one of them. This is what allows the two histories to merge – the artistic, entrepreneurial and societal creativity of Arcola with the technical creativity of sustainability.

The point is simply that creative is not synonymous with artistic. Rather artistic is a subset of creative – one particular mode of expression.

The examples are obvious, as are those who are known for transcending these boundaries

Da Vinci – technical & art

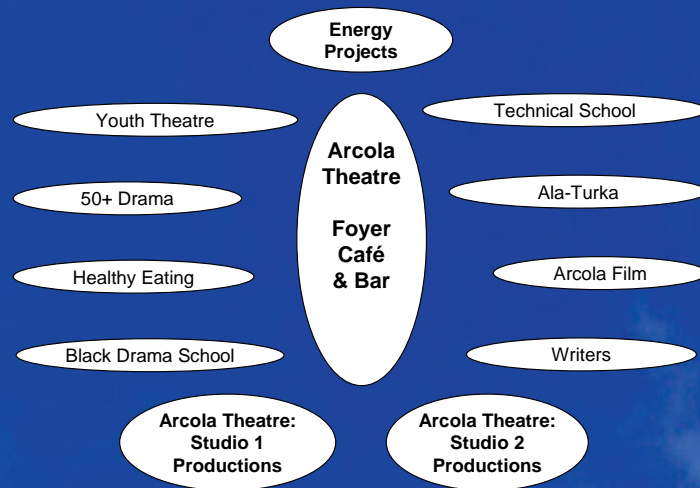
Dyson (Vacuum Cleaners) – technical & entrepreneurial

Zuckerberg (Facebook) – technical & societal

Theatre, like architecture is a great art form in which to see this.

Achieving sustainability is, in my opinion, totally dependent on us attaining excellence in multiple modes of creativity.

P2 – MIX IT UP



Ben Todd, Arcola Energy, 21 January 2007

An emphasis on 'mixing it up' follows directly from the desire to creatively cross-fertilise.

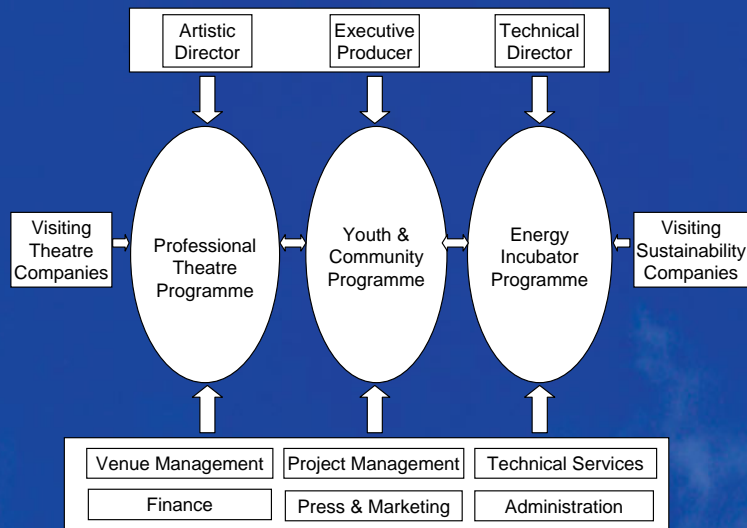
We call it the Foyer concept. It is how Arcola has always operated – everyone together. Initially because there were not enough staff to divide functions. Now it is preserved by design:

- Don't move management 'upstairs'
- Don't create a 'goods entrance' or Stage door
- Keep Professional Artists / Management / Audience / Youth / Community / Rehearsals / Builders / Engineers using the same spaces

That way everyone feels connected and collaboration encouraged. Not dissimilar to:

- Foyer Federation – a French approach to tackling homelessness – creates a space comprising all of the services someone needs and encourages cross agency working
- The new Mathematics Faculty in Cambridge – the branches of mathematics around a central seminar space / library / café

P3 - PARALLELS



Ben Todd, Arcola Energy, 21 January 2007

Finally. Parallels.

This is a framework for the practical management and elucidation of the manner in which a single organisation can manage and benefit from innovation in multiple independent and cross-disciplinary fields. Simply really. Don't just put them all in the same building. Manage the organisation with maximum horizontal and vertical integration. This facilitates both accidental and stimulated cooperation.

Parallels:

Artistic Director = Technical Director

Executive Producer = MBA

Common:

Finance

Project Management

Press & Marketing

Community sits in the middle, informed by both.

Same structure or relations across disciplines:

Visiting companies / Co productions / Joint Projects / Commissions / Subcontractors

A1 –ARCOLA ENERGY

1. Carbon Neutral Arcola
2. Arcola Energy Incubator
3. Inspiration & Education

Energy is shorthand for the wider topic of sustainability

Ben Todd, Arcola Energy, 21 January 2007

And finally to action.

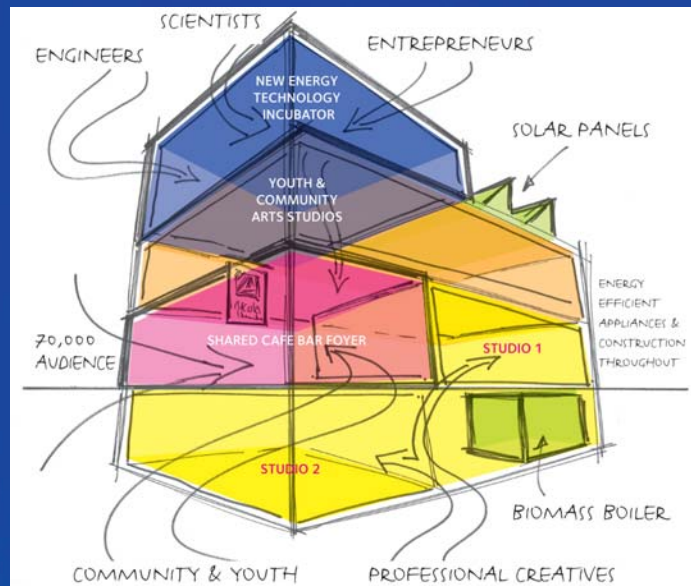
- Arcola Energy is central to the future development of Arcola Theatre.
- It is both a programme of discrete projects and a management approach.

It aims to:

- Make Arcola Theatre Carbon Neutral
- Create Arcola Energy Incubator
- Inspire & educate others through leadership, practical demonstration and targeted training

Note that Energy is shorthand for the wider topic of sustainability

A2 – CARBON NEUTRAL ARCOLA



Ben Todd, Arcola Energy, 21 January 2007

The building.

It is our intention to create a carbon neutral venue, ideally within our existing premises, a dilapidated late Victorian industrial building. The improvement of the old vs. the creation of something purpose built both fits Arcola and addresses the problem that more than half of the buildings which will be standing in 2050 (by when we need to have cut our emissions by 60 to 80%) are already built and not up to much.

We currently lease the lower two floors. We are in discussion to acquire the whole building.

At this point note:

- Energy Incubator on the top floor – more on this to come.
- Foyer through which audience, community, artists and engineers pass
- Carbon Neutral Technology:
 1. Energy efficiency measures implemented throughout
 2. Biomass boiler in the basement, burning oil set and local builders waste
 3. Solar panels on the roof – probably the final stage due to their current cost

A3 – ARCOLA ENERGY INCUBATOR

1. Deploying technology at the cutting edge
2. Hosting companies
3. Building partnerships

Nominally housed on the top floor, active throughout the building and in projects of all kinds

Ben Todd, Arcola Energy, 21 January 2007

The Energy Incubator is structured just like the theatre programme, but nurturing and promoting sustainable technologies in place of theatre

Incubators are common in Universities and on Science parks. The level of integration with art, community and media at a theatre based incubator is unprecedented. If one compares the audience at a theatre like Arcola with the target groups for launching new technologies the match is exceptional.

Thus:

- ‘Visiting companies’ will be able to showcase and refine early stage ‘green’ products
- Commissions will be given to deliver innovative ‘green’ products
- Collaborative projects will be undertaken to deliver theatre specific and community focused products

We have already had significant interest from Architects, Product Designers, Consulting Engineers, Product Developers, Technology Brokers...

A4 – INSPIRATION & EDUCATION

1. Audience
2. Theatre Practitioners
3. Community

Ben Todd, Arcola Energy, 21 January 2007

As we are running out of time, some examples very quickly:

- Low energy bar lighting
- Foyer display – showing real time consumption with emphasis on communicating carbon
- 60+ Drama – post war vs. carbon rationing
- Sustainable theatre practice – courses and delivery

A5 – SUSTAINABLE SHOW

1. Fuel Cell powered, the bar too
2. Opening 12th February 2008. NOW
3. Partnership with theatre company, producer, lighting suppliers, LHP, Central...
4. More partners wanted – get in touch
5. Who's next?

Ben Todd, Arcola Energy, 21 January 2007

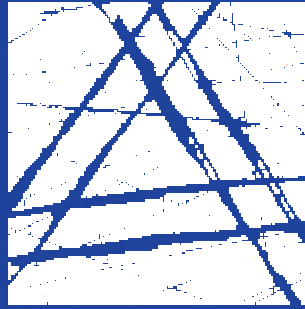
Finally. Can we do better than last year.

YES. This year, a whole show will be fuel cell powered.

And the bar will be permanently converted to low energy lights.

And all the stock changed to green alternatives.

- Something to come and see
- Something to which to contribute
- The next phase in Arcola Energy



arcola
energy

Join us: www.arcolaenergy.com

Thank you.