PhoEf
The Undisclosed Poésis of the Photovoltaic Effect.

A Research Project

by Bartaku
[Bart Vandeput]


Presented at
Kinshasa RDC
The urban jungled sprawl

Electricité coloniale AC: designed for 800 000 citoyens -> Est. actual population: x 10

La pluie ici, c'est binaire:
il pleut / il pleut pas.

Et après la pluie, on compte les électrocutés.

Bartaku - Kinshasa RDC, March-June 2006
Sweet Responsive PV Water Pump

Liuji Solar

- A Confucian Stand ('Installation')
  Intersolar 2006, Freiburg, GE

- **PV-Set up:** Off-grid; No storage
- **PV-Tech:** m-Si
Canalizing Wild Interest

- Understanding PV principles
- Mapping tech, actors, drivers in research/science/market & users in the creative/artistic worlds

through

- Desk research: specialized print and digital media
- Field research: Intersolar 07; meetings professionals
- Practice: hands-on workshops; experimenting
PhoEf > Output

- Knowledge development > workshops, performative lectures, gatherings...
- Advice
- DocuWiki: online working space
- Overview Arts projects / Science-Research-Market (incl. aesthetics of PV-tech) / DIY

PhoEf > Limited

- PV-Boom during research vs very limited resources
- Limited scope: focus on off-grid, stand-alone systems, aesthetics
- Language bias [English, Dutch, French, Spanish, German]
Bonding Energy

Douglas Repetto & LoVid

- Ongoing Installation Work
  NY, US - Oct. 07- Oct. 08
- PV-Set up: Data Sensing only
  (Sunsmile device);
  Grid-connected (computers).
- PV-Tech: Not specified
London Oasis
Laura Chetwood (Archs.)

- Installation – London, UK
  June 16-25, 2006
- **PV-Set up:** Off-Grid, Hybrid
  PV/Wind; Storage: Hydrogen fuel cell
- **PV-Tech:** not specified
- [www.thelondonoasis.com](http://www.thelondonoasis.com)
SOH19 States of Nature

Alex Vermeulen – Syndicaat

- Landscape Sculpture
  Campus Technical University
  Eindhoven, Holland – 2006
- PV-Set up: Off-grid;
  No storage
- PV-Tech: 88 Si-panels
- In collaboration with Technical
  University Eindhoven, Holland
- www.syndicaat.org
Cercle des Oiseaux
Christina Kubisch

- Installation – Seneffe, Belgium
  June-Oct. 2008
- PV-Set up: Off-Grid;
  No storage
- PV-Tech: a-Si
- www.christinakubisch.de
Earthspeaker

Jeff Feddersen

- Accoustic Sculpture
  Accra (NY), US, 2006-2008

- PV-Set up: Off-Grid; Storage: bank of ultracapacitor modules
  (Maxwell Technologies; - 5 55F 15V modules and one 110F module).

- PV-Tech: 4V 100mA glass PolyCrystalline cells (<40W)

- www.fddrsn.net
Drone #2

Björn Schülke

- Autonomous Observing System 2002, Köln, Germany
- PV-Set up: Hybrid On/Off-grid; Storage: Unknown
- PV-Tech: polySi
- www.schuelke.org
Walk

Laurie Anderson

- Outdoor Audio Installations Expo 2005, Aichi, Japan
- PV-Set up: Off-grid; no storage \((\text{Aimulet LA})\) & Grid-connected (other system components).
- PV-Tech: Spherical Si
- In collaboration with AIST (information Technology Research Institute (JAP))
- www.laurieanderson.com
Metabolic Media

Rachel Wingfield [Loop ph]

- Ongoing experiments with DSSC and Organic PV
  London, UK, 2008

- Collaborates with
  - John E. Walker (Nobel Prize Winner - biological energy conversion in living cells)
  - Risø, National Laboratory for Sustainable Energy – Technical University of Denmark

- www.loop.ph
Bamiyan Laser Project
Hiro Yamagata

- Laser Installation - Bamiyan, Afghanistan - June 2012
- PV-Setup: Off-grid, Hybrid wind/PV; Storage: batteries (unspecified)
- PV-Tech: not specified
- www.hiroyamagata.com
PhoEf > some conclusive observations

- **Undisclosed Poésis**: diversity in PV-worlds is not reflected in the worlds of the arts
  - Most works use standard bulk Si-tech > price / no samples...
- **PV provides**: new tropes; aesthetics; blends of materials, concepts of time & space => impact on audiences/users
- **Momentum**: science/industry looking for artists and vice versa

Growing interest in mix Arts, Ecology & Technology

- 'Green chemistry (...is replacing our industrial chemistry with natures recipe box.' Janine Benyus on ted.com)
- Clear product information [versatility vs durability/toxicity…]
- Access to materials

- For outstanding PV-practice > Become a Biodynamic Dervish
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Bru [BE], 2007 - 2008

http://fo.am/phoef

With the Support of Interdisciplinary Lab FoAM (Brussels, Amsterdam)

http://fo.am
http://luminousgreen.org
Thank you for your attention here & now.

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