



Peket – by Bartaku, 2007

PhoEf

*The Undisclosed Poésis
of the Photovoltaic
Effect.*

A Research Project

by *Bartaku*
[Bart Vandeput]

Brussels (BE) – 2007>2008

Presented at
The 23rd EU PV Conference,
Valencia (SP). Sept. 2nd, 2008

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

Liujia 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**

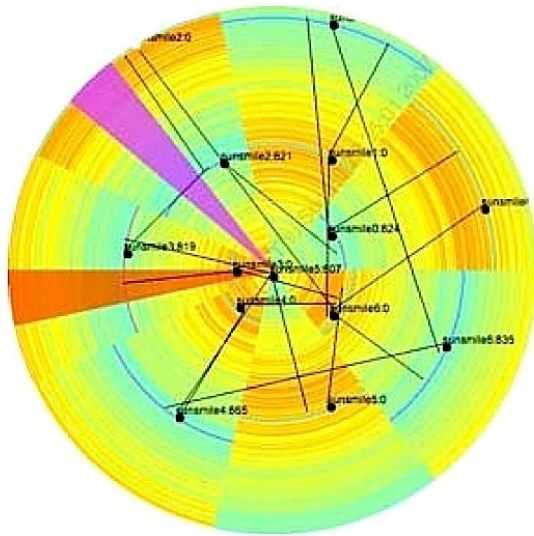
PhoEf > Output

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

<http://fo.am/phoef>

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
- <http://transition.turbulence.org/Works/BondingEnergy>



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

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

- Acoustic 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 (*Aimulet LA*) & Grid-connected (other system components).
- PV-Tech: Spherical Si
- In collaboration with AIST (information Technology Research Institute (JAP))
- www.laurieanderson.com



ざらりと並ぶ僕の目は
みえない光みえるんだ
光のちから受け取って
僕は伝えるヒカリ音を



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



Architectural space-frame with organic polymer photovoltaics (OPV) by Risø.
Photo: Simon Denton

Power jam



WI jam making - kits to empower local communities

Loop ph

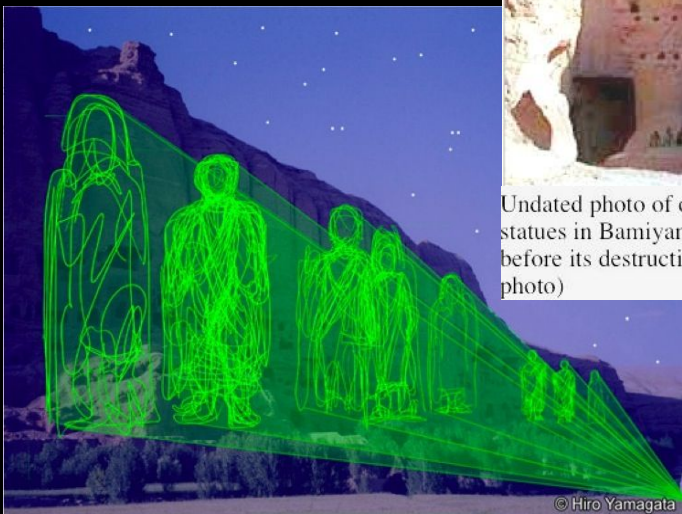
Bamiyan Laser Project

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



Undated photo of one of the Buddha statues in Bamiyan, Afghanistan, before its destruction in 2001. (AP file photo)



© Hiro Yamagata

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

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

<http://fo.am>

<http://luminousgreen.org>

'The Sun is the width of a foot'

Heraclitus

Thank you for your attention here & now.

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