Katalin Fazekas

DLA essay / Thesis booklet
— Community and architecture.
Complex design approaches

Supervisor
— Ferenc Cságoly DLA, DSc
Thesis project
— Bio-briquette drying building,
Monor

DLA School, BUTE,
January 2017, Budapest

Content

Community and architecture. Complex design approaches titled DLA essay thesis booklet
10 copies printed in 176×250 mm size on Lightset 80g/m^2 paper at Monobit press.
Text: Katalin Fazekas, design by: Veronika Juhász, DLA School, BUTE, January 2017, Budapest

Abstract

Community and architecture.
Complex design approaches

Since the 1990's, with the advancement of globalization and environmental issues, as well as overpopulation and increasing poverty more and more quality architectural projects have started to take shape, with the goal of helping communities at stake. Value-sustaining and rational architectural solutions, strategies that aim to provide the best available answers in the most adequate ways.

In part, this essay showcases international examples to introduce possible models for the realization of these social architecture works as related to economic structures. It categorizes these models based on their architectural claim and focuses on their design specifics.
Its theoretical background has been supplemented with an intense, nine-month field research owing to a Fulbright Visiting Student Researcher Fellowship in the United States. Social architecture has a special position in the United States, due to the strong tradition of volunteering and charity. This has obviously affected American architectural practice in the past few decades. As a result, a large number of programmes, courses, trainings, publications, exhibitions, groups and works were born in the field of social responsibility in architecture. During the Fellowship I have been part of a study programme directed towards the architectural future of an orphanage building in one of the most impoverished countries of the World: Haiti.

Closely related to this field of research was my architecture thesis project, a Bio-briquette drying manufacture constructed for the disadvantaged inhabitants of a neighbourhood in Monor, Hungary. The essence of my thesis project is also introduced within the conceptual framework of this essay.

During my Fulbright Fellowship I had the chance to talk with a number of architects actively involved in social architecture projects, such as Teddy Cruz, Dan Pitera and Steve Badanes. These conversations are documented in the three interviews of the Appendix.

The purpose of this essay is to draw attention to the importance of taking personal and professional responsibility, and to feature the case studies as sources of inspiration for further community based architectural projects.

thesis 1

Creating the economic conditions for social architecture tasks and realizing projects require a degree of flexibility and creativity from designers that differs from that of traditional financing systems.

Feasibility models of social architecture can be divided into five categories: foundation commissions a non-profit institution; non-profit design institution works out of funds; for-profit design agency participates in a non-profit design service; university-related studios; other – situation-specific solutions.

thesis 2

Social architecture tasks require a broader point of view and a more complex approach than that of a traditional professional's role. From the early stage of program creation through financial planning, straight to the handover of the building the architect remains an active participant.

In case of social purpose planning, in addition to the usual tasks, other, new subfields are involved, non-traditional problems are also present. Tasks are not linear, preparation, planning and construction are long delayed, meanwhile they are shaped by changes taking place in the community and the project environment. The architect thinks in long-term plans, which are often beyond the scope of the project. Her participation is widespread, s/he writes the tender, mediates between the involved parties, teaches, learns, and participates in the construction.

thesis 3

The follow-up of the completed building and the relationship between building and community, the measurement of results of social architecture, and communicating them is an architectural task.

The sudden abandonment of the long and intensive community-building-architect relationship can lead to the loss of built up trust and the abandonment of the building. Operation and use of the building is a learning process, in which the architect plays a role too. The lessons of successes and failures of social architecture projects, their communication have an incentive effect on similar initiatives and helps their effectiveness. Thus help reaches a growing number of communities.

thesis 4

Social architecture is a practice capable of mitigating extreme circumstances, solidary buildings – in terms of their function – serve basic human needs.

Their functions can fall into four groups based on needs such as: access to a proper home, housing and food and access to primary care services, like education or health care. They also include buildings which promote community coopeartion, also known as community buildings. These are mostly linked to sports or other community events.

thesis 5

With social architecture tasks it is important to preserve and integrate the construction technology culture and building traditions of the local community.

Construction techniques that were developed and tested over centuries and became conventional (structural design, organization of space, technologies) building technologies use locally available building materials. These are reasonable and environmentally friendly solutions. Local technologies come with tradition and culture, re-discovering them helps implantation and ensures fit.

thesis 6

The specialty of social architecture planning is how passages and community areas are mostly placed outside under open, covered spaces, which thus become primary functional areas, important venues of community life.

The tight financial circumstances require frugality: frugality with resources, materials, structures, floor plans and space. The covered, open spaces are also cheaper to build and maintain, while they are still suitable for public gatherings. Beyond community use, these covered, open spaces act as passages through which the transparency of processes taking place within the building can be increased, and so does security. The extroverted spaces are welcoming and convey openness.

thesis 7

The aesthetics of social architecture makes the environment of the community more acceptable, more livable, more beautiful. It prides its users, and this emotional attachment ensures the long-term use and constant maintenance of the building.

Caring for the building and maintaining it will cease if members of the community don't feel ownership, if they were left out its creation, or if the finished building fails to provide them with a sense of pride.

thesis 8

The architect engaged in social work serves the community, in which personal motivation and involvement plays an important role.

Beyond the professional challenges, the long protracted and complex projects coupled with multi-dimensional life situations require human steadfastness. Beyond obtaining professional knowledge and abilities, individuals engaged with architectural goodwill as a vocation are also payed with the important gift of subjective experience, and new, colorful personal relationships.

Thesis project — Bio-briquette drying building, Monor

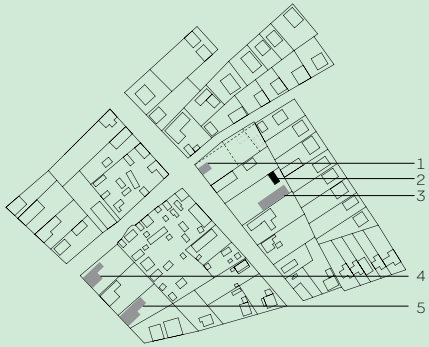
After a few years of preliminary work, the architect work team (Katalin Fazekas, Péter Fejérdy DLA, Miklós Oroszlány, Balázs Kemes DLA) and the local colleagues of the Hungarian Charity Service of the Order of Malta came to the conclusion that a study hall and a small manufactory would be the best help for the lives of the Tabán community of Monor. The site which is owned by the Charity Service is located in the heart of the area on Bercsényi street. Our strategy was to plan a smaller introductory work, design and build a drying building, which can be of help in terms of employment and the supply of solid winter fuel for the families living in extreme poverty. Briquette is a solid fuel made of paper, agricultural and industrial wooden waste by handheld technology. Often the dry firewood is not enough on the site, this is the deficit we wish to implement.

The building regulations, the existing building of the hangar and the position of the prospective study hall specified the location of the dryer. The approx. 60 m2 bio briquette dryer consists of two building units: one to store the tools and one to dry the completed briquettes. The extrusion of the briquettes, the preparation of the primary commodity (paper shredding) and the joint work takes place between the two buildings.

The freshly prepared briquettes dry on boards placed on the brick cantilevers on the sunny southern façade. The briquettes are gathered on the inner shelves as the finishing phase of the work process. Thanks to the use of passive solar energy, the natural air movement and ventilation is nearly constant in the dryer. The southern façade warms up in sunny weather and cool air flows in through the air-shafts on the plinth of the northern façade. Because of the temperature differences the warm air floats up and flows out through the beam intersections on the rooftop ridges. The water collected from the roof is utilized during the briquette preparing process.

The realization took place in a sum-total of a five-week summer camp. During the design process we knew ahead that the construction was going to be the joint work of university students and the locals, so we had to keep this in mind when designing the buildings structure. A further designing aspect was to minimalize the waste during construction and to make the operation economical. The load-bearing soil sits deep because of the ground filling on the site, therefore is was cheaper and reasonable to build a foundation slab. Moreover, with this idea we also created the possibility of an eventual shift in the functions.
The walls are made of 25 cm thick small dense bricks with fully filled joints. The plinth which is more exposed to the weather conditions is made of 60 cm clinker bricks.
Because of the building's size and the technology available to us, instead of a reinforced concrete ring beam we used steel binding elements to hold the walls and roof together. The 10 degrees' roof is made of traditional wood with corrugated slates.

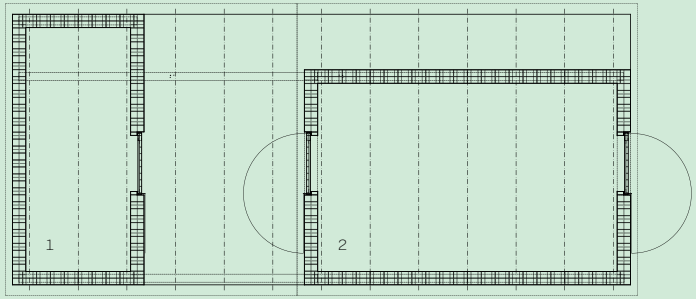
The completed building irregularly had two opening ceremonies. The first was held on the site, the second was held in the Kós Károly hall of the Association of Hungarian Architects a couple of weeks later. Architects, locals, university students who participated in the construction, family members and people who were interested appeared on the opening ceremony. The briquette dryer is still working properly with variable efficiency. The work team is henceforward active, and plays an important role in planning the future of the site.



—Site plan

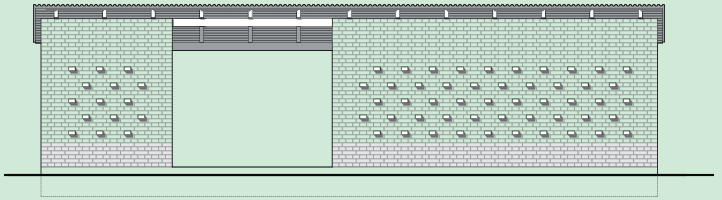
1 Bath house and Football field
2 Biobriquette manufactory
3 Hangar
4 Children's house
5 Study hall

Bio-briquette drying building, Monor, 2014
—Balázs Kemes DLA

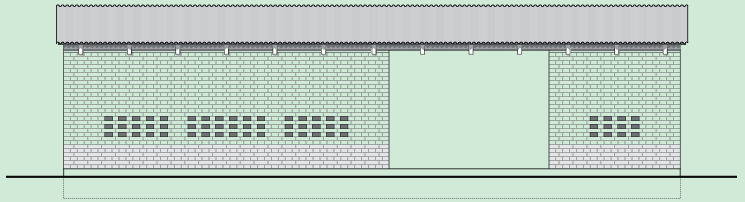


—Floor plan

1 storage
2 dryer

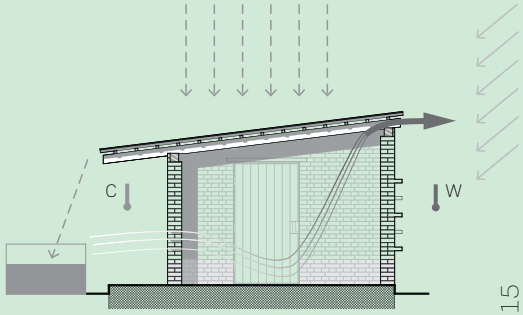


—South-West facade



—North East facade

Bio-briquette drying building, Monor, 2014
—Stefánia Nagy



Bio-briquette drying building
—Sustainability diagram

Bio-briquette drying building, Monor, 2014
—Balázs Kemes DLA

Bio-briquette drying building, Monor, 2014
—László Soltész

Biobriquettebuilding book
on Hungarian — https://issuu.com/katalinfazekas/docs/biobrikett_konyv_hu/4
Biobriquettebuilding book
on English — https://issuu.com/katalinfazekas/docs/biobrikett_konyv_eng
Video — https://www.youtube.com/watch?v=0erxvJQSRg8
Facebook — https://www.facebook.com/epitotabor2014monor/

The organizers, helpers and participants of the Bio-briquette drying building (2012) 2014

Organizers:
Katalin Fazekas, Péter Fejérdy DLA, Veronika Holczer, Balázs Kemes DLA, Miklós Oroszlány

The Hungarian Charity Service of the Order of Malta:
Márton Bátki, Ilona Gál, Katalin Juhász, Dávid Kiss, Szilárd Lantos, Zsolt Oláh, Gábor Szarka

Alumni:
Katalin Fazekas (project coordinator), Miklós Oroszlány (project coordinator) Linda Dezső, Barbara Botos PhD, Daniel German, Roger Garrett Jr., Anna Losonczi, Zsófia Márton, Máté Olti, Szabolcs Portschy, Júlia Richter, László Szendrődi, Dóra Tarnai, Krisztina Túry

Architectural Design:
Katalin Fazekas, Péter Fejérdy DLA, Balázs Kemes DLA, Miklós Oroszlány, Árpád Vilics, Veronika Egyed, Dóra Fódi, Bálint Iszak, Orsolya Nagy, Tamás Polarecki

Consultants:
Márton Bátki (social worker), Nóra Feldmár (industry ecologist), Péter Görög (soil mechanics), Dezső Hegyi (mechanics), Ádám-Tibor Krizsanics (construction manager), Zoltán Páricsy (expert of building constructions), Csaba Szikra (building services engineering), Bence Takács (surveyor)

Participants of the camp:
Balázs Kemes DLA (camp leader), László Soltész (assistant leader), Nikolász Sztavropulosz (assistant leader), Stefánia Nagy (photo), Melinda Bognár, Csaba Buella, Viktória Csapó, Zsófia Dombrovszky, Katalin Fazekas, Péter Fejérdy, Csilla Fekete, Sarolt Grátz, Bálint Iszak, Zsófia Miklós, Anna Farkas, Lili Kovács, Tamás László, Áron Lévay, Márton Lőw, Fruzsina Madura, Gabriella Megyesi, Balázs Nagy, Diána Nagy, Zsanett Novák, Miklós Oroszlány, Tamás Polarecki, Vilmos Schmotzer, Anett Szigeti, Kata Schmotzer, Zoltán András Tóth, Laura Veres, Árpád Vilics, István Virág, Sára Zalavári, Márton Z Szabó

Helpers from Monor:
Béla Gulyás (Bélu), Lacika Gulyás (Kingkong), Ferenc Gyenes (Feribá), Norbert Horváth (Norbi), Krisztián Kállai (Apu), József Kolompár (Luszió), Gábor Oláh (Perverz), József Oláh (Szaki), Józsefné Oláh (Jolika), Krisztián Oláh (Krisztián), Mihály Oláh, Mihály Oláh (Kis Misike), Mihály Oláh (Nagy Misike), Gábor Seres (Bubó), Gábor Seres (Kis Bubó), Csaba Szőnyi (Csabi), László Vidák (Cukorbeteg)

Film:
Képkocka

Sponsors, supporters:
Alumni Engagement Innovation Fund, Embasy of the United States, Hungarian Academy of Arts, Betonpartner Magyarország Kft., Gyümölcstárhely, Kossuth Lajos Elementary School Monor, Théta Hungária Kft., BUTE Doctoral School of Architectural Design, BUTE Department of Public Building Design, BUTE Department of Geodesy and Surveying, The Hungarian Charity Service of the Order of Malta, Tutor Foundation.

Curriculum vitae

Education

2012–2013
Fulbright Visiting Student Researcher at Portland State University (PSU) Research advisor: Professor Sergio Palleroni

2009–
DLA School, BUTE, (Doctoris Liberalium Artium-equivalent of Ph.D. in art) Research adviser: Cságoly Ferenc DLA Topic: Social empathy in architecture Degree expected: 2017

2008
M.Sc. in Architecture and Engineering honors public design modul, Budapest University of Technology and Economics

2004–2005
Technical University of Tampere, Finland, (Erasmus study abroad program)

2000–2008
M. Sc., BUTE, at Public Building Design Department

1995–1999
Alternative Economics High School, Budapest

Work experience

2014–
founder of Kettőpera Studio, Budapest co-founder: Árpád Vilics

2013–2014
architect at AlliedWorks Architecture, Portland, Oregon, U.S.A

2009–2011
architect at Zsuffa és Kalmár Architects, Budapest

2008
architect at Oneperone Architect Studio, Budapest

2006
architect at Roeleveld and Sikkes, Budapest

2005
traineeship at Karácsony Studio, Budapest

Professional works

2016
Apartment house, VII. district, Budapest with Árpád Vilics

2016
Apartment house, Győr with Árpád Vilics

2015
Villa, Alkony str., XII. district, Budapest, with Árpád Vilics

2014
Biobriquette Manufactory, Monor, with Péter Fejérdy DLA, Balázs Kemes DLA and Miklós Oroszlány – built

2014
Mozambique U.S. Embassy, Maputo, Mozambique, Design development and Construction plan, Allied Works Architecture

2014
Headquarter of Theory fashion label, New York, N.Y., U.S.A, Schematic design, Allied Works Architecture

2013
Summer house, Balatonszárszó, Architecture and interior design with Árpád Vilics – built

2012
Water farm and community space, Titanyen, Haiti

2012
Rehabilitation of the Szent István square, Újpest competition at DLA school, BUTE with Gabriella Antal, Ágnes Jószai and Zsófia Kovács

2012
CommON_Build Community curatorial proposal for the 2012 Venice Biennale with Gabriella Antal, Balázs Kemes DLA and Krisztina Somogyi

2012
PlaNET project, competition at DLA school, BUTE with Ágnes Jószai

2012
Rehabilitation of the Kálvária square, competition at DLA school, BUTE with Gabriella Antal

2011
RádVÁR project at Szent György place in Buda Castle, competition at DLA school, BUTE with Gabriella Antal, Ágnes Jószai és Zsófia Kovács

2010
Rehabilitation of the Hungarian National Gallery, competition at DLA school, BUTE with Gabriella Antal – II. prize

2010
Remodeling of the Ady Endre Cultural Center and Library, competition, Nyergesújfalu, with Gabriella Antal

2010
Family house plan, III. district, Budapest Zsuffa és Kalmár Architects

2010
Maribor European Capital of Culture 2012 competition, Zsuffa és Kalmár Architects – honorable mention

2009
Csepel Művek – architecture rehabilitation of an old industrial area, competition at DLA school, BUTE with Gabriella Antal – joint 1st prize

2009
HungaroControl Air Navigation Center, Construction design, Zsuffa és Kalmár Architects

2009
Kindergarten at Hársfa str., Budaörs – competition, lead by Gábor Zombor DLA

2009
Remodeling of the Castle of Sümeg, Schematic design plan and Design development, Zsuffa és Kalmár Architects

2009
4+2-unit Apartment house, Zuhany str., Budapest, Design development and Construction design, Zsuffa és Kalmár Architects

2008
Weöres Sándor new theatre building competition – Szombathely, Zsuffa és Kalmár Architects – 1st prize

2008
Haris Apartment House and Conference Center, Design development plans, Budapest, Egyperegy Architects

2008
Remodeling of a family house, Budakeszi, Schematic design plan, lead by Aurél Benárd DLA

2007
Hotel Clark, Budapest competition
lead by Péter Klobusovszki DLA
2006
TDK competition,
Homey Future, +n, BME,
with Gabriella Antal and Ádám Potzner
2004
Monument documentation,
Deák house, Paks
lead by Tamás Karácsony DLA
2004
Art Channel at Margaret Bridge,
1st prize
2004
Folly competition,
Multifunctional Center, Finland, –
honorable mention

Lectures, teaching assistant experience

2016
About social architecture entitled
lecture organized by Meet the Scientist
program at the Benedictine Secondary
School, Pannonhalma
2016
Lecture about Biobriquette Manufactory
with Miklós Oroszlány
at the American Corner,
Corvinus University of Budapest
2015
Lecture about Biobriquette
Manufactory with Miklós Oroszlány
at Creative Construction Conference,
Krakow
2014
Lecture about Biobriquette
Manufactory
with Miklós Oroszlány and
Balázs Kemes DLA
at the Night of Democracy Event
2014
Portland State Haiti Program
named lecture at BME,
Sustainable Design guidelines class
2014
American University Experience
lecture at BUTE DLA School
2013
Social Architecture lecture
at Portland State University
2013 spring
Architectural Design Studio
class assistant, PSU
2012 autumn
Arch 480, Architectural
Design Studio 4 assistant
(4th year students' studio), PSU
2012 spring
Public building design
(2nd year students' class), BUTE
2011 autumn
Departmental Project
(4th year students' class), BUTE
2011 spring
Public building design
(2nd year students' class), BUTE
2010 autumn
Departmental Project
(3rd year students' class), BUTE
2010 spring
Public building design
(2nd year students' class), BUTE
2009 autumn
Space composition
(1st year students' class), BUTE
2009 spring
Basics of architecture 2.
(1st year students' class), BUTE

Exhibitions

2017
Biobriquette Manufactory at Think
Global, Build Social! + Builders/Építők
named architecture exhibition
at MODEM Centre for Modern and
Contemporary Arts, Debrecen
2016
Biobriquette Manufactory at Think
Global, Build Social! + Builders/Építők
named architecture exhibition at FUGA
– Budapest Center of Architecture
2014
Biobriquette Manufactory – Monor
named exhibition at the Kós Károly
hall, House of Hungarian Architects,
Budapest
2012
PlaNET design at 5th Sustainable day
at Park Millennial, Budapest
2011
exhibition called DLA School Now
in the Fuga, architectural centrum,
Budapest
2010
Art gallery – Diploma project at the
International Model Festival, Budapest
2008
Art gallery – Diploma project
at the Exhibition of the Associations
of Hungarian Architects, Erzsébet
Square Cultural Center, Budapest
2008
Art gallery – Diploma project at the
BUTE University exhibition, Budapest
2008
Art gallery – Diploma project
at N&n gallery, 'középkezdés' named
exhibition, Budapest
2005
Exhibition at the Tampere municipality,
selection of the Students' works on
Landscape design, Finland
2005
Folly competition – Tampere University
exhibition, Finland
2004
Boat-house project at 'beadás' –
Education on the Public Design
Department named exhibition,
N&n gallery, Budapest
2004
Boat-house project at University
exhibition, Zebegény
2004
Art Channel named design
(competition 1st prize)
BUTE University exhibition, Budapest
2003
Residential Building design
at Festival of Art Universities,
Park Millennial, Budapest
2002
Remodeling of a Family house,
Uni. Exhibition, Mezőkövesd

Publications

2016
Article: From inside to outside –
Summerhouse, Balatonszárszó,
text: Levente Szabó DLA In: Magyar
Építőművészet 2016/02, p. 46–49.
2016
Biobriquette Manufactory, In: Builders,
Socially Engaged Architecture from
Hungary, text: Balázs Kemes DLA,
Szerk.: Péter Pozsár, Hellowood Kft.,
Budapest, p. 98–113.
2015
Article: Tuned to the landscape,
– Summerhouse, Balatonszárszó,

text: Petra Hoffmann, In: Magyar Építőművészet 2015/8, p. 14–19.

2015

Article: Biobriquette Manufactory – Monor, Tabán,
text: Balázs Kemes DLA,
In: Metszet, 2015/1, p. 12–13.

2014

International outlook, Building Strategy titled articles in Biobriquette building, Monor Designbuilt,
Publisher: Katalin Fazekas, Miklós Oroszlány, Edited by: Katalin Fazekas, Miklós Oroszlány, Balázs Kemes DLA, p. 16., 30.

2012

Kálvária Square Rehabilitation and the PlaNET,
In: DLA School 2011/2012 Yearbook, p. 194–195, 202–203

2011

RádVÁR project,
In: DLA School 2010/2011 Yearbook, p. 72–83

2008

Diploma project,
In: 2007–2008 Architect's Yearbook of Chamber of Hungarian Architects MMVIMMVIII

2008

Diploma project on the website of Forum of Architecture,
(www.epiteszforum.hu/node/9861)

2003

Residential Building prjoject on Építészfórum 'Selection from the second year student's projects' (www.epiteszforum.hu)

2002

Introduction of the project Family house, In: Álomházak 2002/07, p.25th–29th

Awards, recognitions

2014

project support from ALUMNI Engagement Innovation Fund 2014, theme of Outreach to Underserved Communities, U.S. Department of State

2012

Fulbright scholarship – Visiting Student Researcher at Portland State University (PSU)

2012

fund to support creative mind from National Cultural Fund for the project Architecture Tours, and to the documentation of contemporary architecture in Hungary

2010

TÁMOP university research Scholarship

2009

Prima Primissima Junior for outstanding academic performance

2008

Diploma award of Association of Hungarian Architects

2008

Diploma award of Hauszmann Alajos, University diploma prize

2008

Diploma award of Graphisoft, Hungary

2004

Erasmus study abroad Scholarship, Technical University of Tampere, Finland

2004

Architectural Field trip to Denmark BUTE, Public Department

Bio-briquette drying building, Monor, 2014
—Stefánia Nagy

“Good design is not necessarily about style. It’s about who you do it for and how it makes the world better.”

—Steve Badanes, 2013