Power to the Peer

A conversation about the distribution of energy and housing via blockchain-based platforms

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By George Kafka and Fiona Shipwright

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"Blockchain can ideologically and technologically enhance architectural practice and finally bring to life ideas about architecture as a complex system of relationships and connections, rather than bricks and stones."

The growing popularity of blockchain systems for organising and distributing information is creating new, network-based architectures. Exploring the possibilities of blockchain-based systems for the built environment are two speculative projects submitted to the Future Architecture platform: DOMA, an affordable housing platform, and Phi, a clean energy platform. In this conversation, conducted via Slack, &beyond's Fiona Shipwright and George Kafka discuss the potential of these projects to create socially sustainable and equitably distributed solutions to our basic domestic needs.

Phi

Aliaksandra Smirnova is an urbanist and a co-founder of Phi. Phi is an international collective working at the intersection of peer-to-peer technologies, energy futures, and speculative design. Their projects imagine new ownership models to enable sustainable futures and reform how value is recognised and socialised. Phi is Calum Bowden, Cory Levinson, Aliaksandra Smirnova, Artem Stepanov, and Aiwen Yin.

George Kafka [6:04 PM]
joined #phi-and-doma.

George Kafka [10:30 AM]
Morning all!
Have we got everyone here? Phi...Doma...Fiona?
:neutral_face:

maksy [10:35 AM]
joined #phi-and-doma by invitation from George
Kafka, along with 3 others.

Fiona Shipwright [10:35 AM]
Good morning!

Sasha [10:36 AM]
Hi! Phi is here
:slightly_smiling_face:

FSBRG [10:36 AM]
Hi
I'm around too

Previous spread: Network.
Image: Phi

George Kafka [10:37 AM]
ok super
To start off, perhaps it would be best for each
of you to briefly introduce yourselves and let
us all know where you're joining from. I'll
start — I'm George, I'm editing Archifutures
5 with &beyond and I'm currently in sunny
London...

Fiona Shipwright [10:38 AM]
I'm Fiona, I'm also editing Archifutures 5 with
&beyond and I'm in slightly overcast Berlin

FSBRG [10:40 AM]
Hey I'm Francesco, from DOMA, and I'm based
in Paris.

Sasha [10:40 AM]
I'm Aliaksandra (Sasha), I'm a co-founder
of the project Phi and I'm talking from Moscow
with a perfect temperature today.

maksy [10:40 AM]
I am Maksym, from DOMA, joining from Kyiv.

George Kafka [10:42 AM]
Thanks again all for joining. Please feel free
to take as long as you need to answer — one
of the aims of doing this in Slack is to allow
a bit of thinking time

George Kafka [10:42 AM]
For this issue we are exploring the theme
of "apocalypse" in which we are trying to
interrogate what that word means and what
implications it has for the future
of architecture.

Fiona Shipwright [10:45 AM]
I would also add to that we're interested in
the idea of the apocalypse as a long term
process, not just a binary "before/after"
event.

FSBRG [10:46 AM]
It's interesting because, as far as DOMA
is concerned, we actually try to stay away from
notions of resilience and survival in times of
impending crisis as we think these notions tend
to fuel the crisis rather than solving it,
so in the face of real urgencies, we're trying
to deploy a long-term strategy.

George Kafka [10:47 AM]
Perhaps to start could you explain a little bit
about the contexts in which you are working?
For example, DOMA, why did you choose to
address housing issues where you are? And Phi,
was there a particular situation that inspired
your focus on energy systems?

FSBRG [10:49 AM]
Well I think wherever you are today in our
urban world, you can't really escape the
so-called housing crisis. We see it as a
structural feature of the twenty-first century
city.

Sasha [10:52 AM]
First, I would like to highlight again the idea
that Fiona mentioned, that you're interested
in processes and strategy rather than points
in time. I think it's very important for Phi.
Regarding the initial ideas and concepts that
are behind Phi, I think we're interested and
imagining how a world that is no longer based
on scarcity but on abundance could look like.
From our point of view this transition starts
with energy.

FSBRG [10:53 AM]
DOMA set out to imagine not so much a way out
of this crisis, but a way across it. Using the
financialisation of housing to achieve opposite
goals to its current ones, playing the market
against the market, recognising the widening
urban inequality gap as our site
of intervention.

DOMA

Maksym Rokmaniko and
Francesco Sebregondi are
architects and co-founders
of DOMA. DOMA is a
blockchain-based, shared
ownership platform for
equitable housing. Bridging
the great divide between
renting and home ownership,
DOMA leverages the
principles of the new token
economy to make urban
property accessible to all.

Phi and DOMA were both initially conceived at the same time and in the same context – The New Normal programme at the Strelka Institute in Moscow – so we have a lot in common in our ways of thinking and tackling the urgencies of our urban future.

We're cousins basically.

Sasha [10:56 AM]
So, we're asking what the social and economic values of such a world would be. How the aforementioned abundance of resources (energy) will transform social relationships and reconfigure distribution of power.

George Kafka [10:58 AM]
The other connection that is quite obvious is how both of your projects utilise blockchain technology – was that something you both explored at Strelka? Can you explain why that technology might be important for the future of architecture?

Sasha [10:58 AM]
Yes, actually DOMA and Phi were initially going to be same project. The first idea was that Phi would be an infrastructure and DOMA could implement their system.

FSBRG [11:01 AM]
To your question @George Kafka. I guess we're not lacking grand narratives about the revolutionary potential of blockchain technology, the use cases and impact of which could extend to every domain of our contemporary life. In order to speak about its impact on architecture, I think one needs to think about architecture in an expanded sense – not only the architecture of buildings, but of systems of relations.

In that sense, the question for me is the other way around: what can architecture do for

blockchain? I think architectural thinking has a big role to play in negotiating the right "blockchain revolution" ahead.

Sasha [11:04 AM]
Talking about Phi, we can say that blockchain has two main functions in our project: techno-economic and social. The first one is quite straightforward, we use blockchain to store the information about energy consumption on a public ledger that will allow us to generate tokens with a certain value. Those tokens will have a social function that will create an incentive for people to transition from fossil fuels to clean energy sources.

George Kafka [11:05 AM]
As part of the process of making this book, &beyond are also considering the radical acts of *hope* and *trust* in the face of apocalypse (environmental, social, political catastrophe) - following on from your comment about "systems of relations" @FSBRG, do you see these notions as part of your projects? Or to put it another way, what might be the social consequences of Phi and DOMA, beyond their primary functions relating to housing and energy?

FSBRG [11:11 AM]
Perhaps a very real aspect of the "apocalypse" is our current, globally pervasive crisis of hope and confidence towards the future. I think DOMA is driven by a will to challenge that. It's an experiment that tries to use blockchain technology in order to assemble a new collective agency. One that is capable of scaling up, in order to face the forces of a rigged housing market, which condemns the large majority of urban dwellers to a lifetime of rent, of long-term exploitation and alienation. So it's about trying to prove that it's actually not impossible to regain a degree of hope in our urban condition, and reconfigure

some of its key logics so that it can become more inclusive and more sustainable in the long run.

Sasha [11:15 AM]
I think that those notions are very important for Phi since it was conceived as an answer to the climate change issue and the incapability of central authorities and governments to deal with it.

FSBRG [11:16 AM]
It sounds naive, but I think we almost need some naivety today. There are things that we can change, right now. The technology to support it is mature. Perhaps it's the collective will that isn't.

maksy [11:19 AM]
Yes, but I think people are also more and more aware that what we are facing is not a crisis of production, in terms of housing — it is a crisis of distribution. And I think, politically, there is a demand for movements addressing that.

Sasha [11:20 AM]
By proposing a collectively-owned energy system Phi aims not only to secure clean energy but also be a kind of an educational tool for people to understand how the energy system works. We hope that it will create an understanding of collective responsibility for rising temperatures and melting ice.

George Kafka [11:21 AM]
I think there's something really interesting in the idea of how p2p networks might facilitate a form of community underpinned by a digital infrastructure, as opposed to a physical one. That, to me, is where the hope lies in these projects, would you agree?

Fiona Shipwright [11:22 AM]
I also wanted to pick up on what you just said
Sasha about being an educational too. What both
these systems do is make visible materials and
process flows. Although some may feel blockchain
is complicated or "difficult", it makes those
flows much more visible than, say, "traditional"
modes of architecture production.

Sasha [11:25 AM]
Exactly. I think blockchain can ideologically
and technologically enhance architectural
practice and finally bring to life ideas
about architecture as a complex system of
relationships and connections, rather than
bricks and stones.

FSBRG [11:32 AM]
I guess both our projects acknowledge that
our contemporary experience of a "community"
is an increasingly mediated one and that,
when it comes to acting as a community, the
question of designing the medium by which such
communities can exist today becomes crucial.
Both our projects – @Sasha correct me if I'm
wrong! – revolve around exploring the potential
of blockchain to achieve coordination and
consensus among a mass of distributed users
at scale. The problem of scale is critical
here because of the wicked problems we are
respectively trying to address – the global
housing crisis for DOMA, climate change for
Phi. With DOMA, one of the central question
for us is: what is the minimal infrastructure
we can design to allow vast amounts of urban
dwellers to act as a single community of
interest?

Sasha [11:34 AM]
Following up on Fiona's comment, the central
point of Phi is the user. Basically, Phi is an
interface to complex systems (such as energy
or blockchain) that treats users equally.

That means that Phi aims to translate such systems into a "human" language without hiding information about how these systems actually work. And we want to achieve this by giving the user decision-making power.

Sasha [11:45 AM]
The scaling issue is something we are constantly dealing with in our project. Phi was initially thought of as a "global energy network empowered by blockchain technology". But at the moment of actual implementation we obviously have to narrow our ambitions and face up to real life factors. So we developed strategies to build a minimum unit for a scalable system that didn't lose touch with our initial philosophy, and could still co-exist with the current socio-political climate. It's not an easy task, but bringing our ideas from a speculative world into the real one is definitely worth the effort.

George Kafka [11:47 AM]
So what is the future for Phi and DOMA? How do you plan to take them from the speculative to the real? When will I be able to live in a DOMA property or source my energy from the Phi system?

Sasha [11:53 AM]
We're currently working on the implementation of Phi. We're interested in building a working prototype, a sort of a test-case at the urban scale, that will allow us to showcase our system. We are also in conversation with several companies and start-ups that could provide us with the hardware (e.g. batteries and solar panels) and we're working on a software focusing on UX (user experience) and UI (user interface) that will help people to manage decentralised renewable sources.

maksy [11:54 AM]
We are convinced that the level of crisis and the level of urgency in which we find ourselves today in relation to the housing crisis, demands long-term, bold, ambitious visions, rather than emergency solutions and piecemeal actions. We are planning an experiment aimed at testing our core strategies: crowd-buying of property and equity distribution.

Sasha [11:59 AM]
I hope that there will be more news and developments soon

George Kafka [11:59 AM]
That seems like a good place to end the conversation. Thanks again for your time and thoughts this morning, it's been super interesting and I'm excited to now work out a way to translate this conversation onto a printed book!

Fiona Shipwright [12:00 PM]
Thank you very much everyone for the really interesting thoughts to continue thinking on.

George Kafka [12:03 PM]
:wave: