Mess-Mate Co-designers

"To be one is always to become with many."

Edward Dodington

The place of human-kind is in a precarious state these days. The human link in the web of life is daily being gently eroded by developments in science, animal-studies and by thinkers and philosophers such as Donna Haraway, quoted above. This is not necessarily a problem or bad thing, but simply a change, an opportunity.

Our species-wide transition is being played out, not without some distress, across our current ecological, biological, theoretical, metaphysical and stylistic worlds often with the same resounding conclusion: "to be one is to become with many."[1] To paraphrase, we are no longer singularly humans but something more, something multiple. For Haraway *to become with many* is an awareness of the reality of our convoluted, messy, "knotted" existence with a whole host of other sometimes smaller sometimes larger animals. These are the animals that live in and around us, bacteria for example, that make our human lives possible and without whom we could not be. In practice this translates into increased respect for animal life, a greater appreciation for our connectedness to the webs of life around us, and a holistic appreciation for our own bodies.

To become with many suggests a radical paradigm shift in design. In light of Harraway's quote above, past and current architecture appears to be part of an outdated human-centric mindset where "to be one is always to be different from others." This is no longer the case. That period is over.

Through this paper we will be introduced to several architectural projects that, though wildly different in almost every way, show us how as designers, architects, and humans we can more actively engage our mess-mate co-designers to produce rich and diverse habitats for all. We will see that *to become with many* in the built world is no different from the biological—and that there is, in fact, no space separating the two. We will see however that while architecturally the biophilic sentiments might remain the same, the practice is perhaps a bit more confounding. And lastly, the projects collected here will remind us that outside of the world of mathematics there is no singularity. We are always enmeshed in the lives of others and always becoming with many. Isn't it time we built this way?

But to redirect the momentum of thousands of years of human-centric design is no small task. One of the central assumptions of this body of research is that architecture has had a historically negative relationship to nonhuman life. Each project discussed here-in, in some way or another, takes this assumption as the first point of departure and progress is measured according to the reversal, exposure, or confounding of this trend.

To engage in extra-human design proposals is to engage in a redefinition of the very essence of architectural production itself. From its early beginnings, evolving out of the agrarian huts of early human societies, architecture has been complicit in a type of speciesist regime—preferencing some species over others (these animals inside, those animals outside) and as a tool for agriculture and husbandry (pens, barns, coops, and slaughterhouses). Eventually this strain of agro-architecture has evolved into a complicit bystander, if not active participant in the mass-slaughter of factory farmed animals and as an all too mute participant in the rampant development of mass-produced suburban housing. So, whether it has been acknowledged as such or not, architecture has always had a role in mediating the relationship between human-life and animal-life. Moreover, the history of this lineage is an essential component to architecture per se. It is, we might say, a dominant strand in the DNA of architectural production—and now, perhaps seen as an unfortunate one.

Regardless of its past however, there is a deep connection between architecture, humans, and our myriad companion species. In fact, despite the concerted efforts of hard-working exterminators and pest-controllers, many of these species currently play a very active role in the shaping, planning, and maintenance of our structures. So one might correctly say that many of the structures that currently stand are in a way already engaged in a process of *becoming with many*—however it's most likely not quite what we had in mind.

The good news is that Architecture, literal architecture, is for better or worse, at its core, an extension of the earth and therefore already connected to the life around it. It is literally and figuratively at its foundation connected to and engaged in a relationship with our synanthropic friends. The question now is how to shape and improve the quality, color, and caliber of that relationship. Architects and designers will debate this point, but if we speak honestly about architecture we are talking about a kind of materiality—an objectness that under any circumstance will ultimately be manifest in material, and therefore of the earth. It is this rootedness in an earthly materiality that can provide a common point of connection across species, invite cross-species collaborations and bring our mess-mate co-designers to the table. After all, we are all part of life together.

HOW TO RESPOND TO AN OTHER—ANIMALARCHITECTURE.ORG

To become with many is firstly to be open to others. Architecture, like the soil to the corn, must participate in life, while not necessarily having to itself be alive. It must be involved deeply and broadly in life and living processes just as water, minerals, and air are all necessary elements for life and living yet ultimately themselves inanimate. This relationship-to-life, or relationship-WITH-life, where architecture is conceived as the ground-work, the foundation, the back-drop, the nutrients, and the support for animate life is the conversation that we should be

having. And, for the last four years, Animal Architecture (www.animalarchitecture.org), has been devoted to just such a discussion.

Animal Architecture is a web-based platform dedicated to an ongoing investigation into the performative role of design in ecology. The project operates on the edge between humans and our surrounding "others," illuminating alternative ways of living with nonhuman animals, discussing cross-species collaborations, and defining new frameworks through which to discuss biologic design.

Since its inception Animal Architecture has juried two international competitions, posted over 180 different projects, reviewed texts, generated unique content, participated in two exhibitions, been covered in local, national, and international press, and released ground-breaking work in the field of biologically open architecture. In many circles Animal Architecture has become a resource on radical ecological design strategies. Through the years Animal Architecture has been able to amass a certain number of projects that has begun to coalesce into a significant body of work, one that can start to withstand serious scrutiny. In particular, the body of work contained on AnimalArchitecture.org can begin to be used directly to answer the major question posed by this panel: *What are architecture's next companion species, and what new forms of architecture will emerge to sustain them?*

While there are many different projects on the website, in general three basic groups of projects can be discerned: Synanthropic Habitats, Soft Structures, and Post-Animal Alternate Realities. Each of these sets of projects defines and explores in their own ways what it means *to become with many*.

SYNANTHROPES, SOFTIES, AND POST-ANIMAL PROJECTS

Synanthropic Habitats propose scenarios where animals and humans live closely together in cross-species cities or abodes—they are the projects that most often come to mind when one thinks of Animal Architecture. Soft Structure projects on the other hand, rather than emphasizing a design solution for other animals, generally seek to weaken or reduce the negative impacts from human architecture. And finally, Post-Animal Alternate Reality Projects (PAARP) seek to alter the mind-set about human/animal interactions and related speciesist power struggles. With a near total absence of architectural implications, the PAARP achieve their interventions through focused art installations, public relations work, and even 3D virtual reality sensorial experiences. Each of these types of projects posits distinct design scenarios for living with nonhuman counter-parts, and each makes certain assumptions about human/animal perspectives and where the bulk of the work and intervention should occur. All of them radically redefine current architectural practices and the discipline at large.

Synanthropic Habitats are Bird Scrapers, Hive Cities, Feral Cities, Pest Walls, OysterTectures, Animal Estates, and The Truffle among many, many others. In general they suggest a shared design scenario whereby both the human and animal inhabitants, be they bats, oysters, or birds share in a kind of urban, occasionally residential co-habitation. They are the most numerous design proposals on Animal Architecture and are perhaps best

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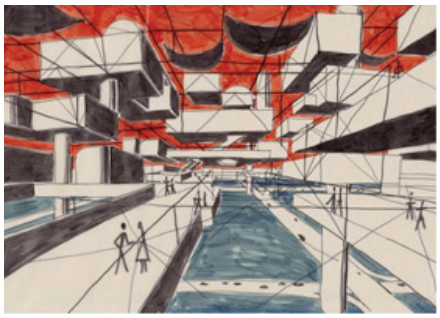
Figure 1. Bat Cloud, the 2012 winning Animal Architecture Award project by Joyce Hwang is a strong example of synanthropic habitats



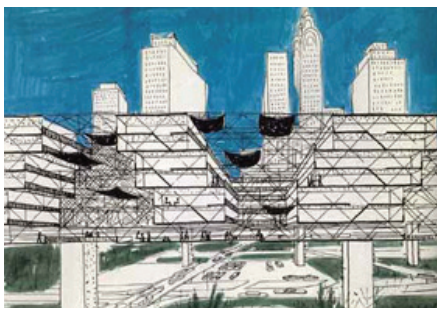


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Figure 2. Soft-Structure projects like these two sketches by Yona Friedman have found a kindred spirit in the work of the Starn Brothers, shown above.

exemplified by this year's winning Animal Architecture Award project, Bat Cloud, by Joyce Hwang (fig.1).

The basic *modis-operandi* of Synanthropic Habitats is humans making concerted efforts to design for, improve, and invite alternate species into human environments. These projects like Joyce Hwang's Hive City or Bat Cloud often rely on a system of attraction or repulsion to help incentivize animal life to occur in particular locations which have been predetermined to be beneficial or at least not detrimental to human habitation, and of course beneficial to the animal inhabitant.

Synanthropic projects also tend to involve a hefty amount of prescriptive design for the animal in question. The suggestion is that human design efforts can indeed improve on their otherwise naturally occurring habitations (for example assuming that bees would rather live in a built hive, or that birds would rather live in a designed house than their normal residential options). Occasionally the projects add a layer of positive human attributes like alternative energy production, protection from rising sea levels, or increased pest control. Projects such as Kate Orff's Oystertecture or Z. Huang's Bird Scraper demonstrate these kinds of positive design strategies where the particularities of the nonhuman habitation promises a benefit for the humans.

Over-all the Synanthropic Habitats strike a kind of ambivalent posture with respect to design. Inevitably there comes a point where a lack of biological information will ultimately challenge the basic assumption that a designed habitat will be more suitable than the "natural habitat" to the chosen animal. Unlike a human client the alien tastes of the animal-client pose a major design problem for an otherwise standard design project. The reality is that in most cases biologists have very little idea what the size, shape, arrangement, or color of materials will be more or less suitable for a given animal. So, the projects are then often over-designed and aestheticized or under-designed knowing that there is a very real chance that despite all of the best intentions, the animals simply will not come. Or more likely that whether they do or do not arrive will depend on an entirely other set of factors such as proximity to water, food, or protection from predators.

On the other hand, Soft Structures offer a different set of strengths and weaknesses. The underlying assumption is that rather than design specifically for alternate animal life as we saw in the Synanthropic projects, the best strategy is to minimize detrimental human habitation. These projects also tend to operate on the scale of landscape architecture, Megastructure, large urban agriculture, or infrastructural projects.

Field Operation's Downsview Park proposal, the work of the Starn Brothers and Micheal Van Valkenberg's ARC Wild Life Crossing each demonstrate the design strategies present in Soft Structure animal projects (fig. 2). The aim of a Soft Structure project is to weaken human development and to strategically play into the ecosystem at large. Projects tend to dis-aggregate human habitation, favor less dense urban cores, a higher percentage of greenspace and porous, if not altogether temporary architectural structures. Or,

on a different extreme, many of the projects propose extremely large interventions, akin to the mega-structuralist movement of the 1950s and 1960s in the US and UK lead by Yona Friedman (fig. 2), where the extreme scale of the project renders the design intent for specific animal habitations almost mute.

What these projects lack in the definitive design qualities of the previous group, they make up for in their largeness of scale and a certain amount of ecological believability—if, not necessarily in terms of real-world feasibility. But where the success of the Synanthropic projects relies on a collaborative relationship between human and animal partners, many of the Soft Structure projects seem to wish away the humans. Overall, in projects like Downsview, there is a quiet refusal to adequately address the demands of human habitation and a sneaking suspicion that if you pushed them, the designers would really prefer for the humans to be gone completely.

But while these two groups, Synanthropes and Softies, might differ in terms of scale, scope, and stated design direction the promise of each is what Donna Haraway might term an *autre-mondialisation or "liveable other world"*[2] made possible through poly-species alchemy where 1+1 = an unknown and potentially unimaginable reality.

Of course there is a risk to this co-species alchemy and that risk is our very humanity. As Haraway suggests, in such projects there is

> no teleological warrant here, no assured happy or unhappy ending, socially, ecologically, or scientifically. There is only that chance for getting on together with some grace.[3]

But the potential benefits are enormous. More than simply benefiting from an increasing number of companion species, is the opportunity to "cross the great divides."[4] In such projects lies the potential to "flatten into mundane differences" the animal/human, nature/culture, and organic/technical divides that have served to under-pin the majority of western culture—including the history of architecture. While it's difficult at this time to claim that Bat Cloud has flattened the human/animal divide, it is fair to claim that with time, such projects hold the potential to radically redefine architecture and design. Moreover such projects are certainly, at this moment, changing popular opinion about animal agency in design practices.

A third category of projects approaches the human/animal divide from a very different source. The Post-Animal Alternate Realities, demonstrated by Simone Ferracina, Natalie Jeremijenko, Animal Super Powers and Alison Hunter to name a few, seek to change the hearts and minds of human individuals. These are the art-pieces, installations, virtual-reality games, temporary interventions that directly aim to change the way humans think, and obliquely to influence the way we live. Simone Ferracina's 2011 Winning Animal Architecture Awards project (fig. 3), Theriomorphous Cyborg, is one of the most intriguing projects of this field.

In the project Simone asks individual gamers to enter into the world of another animal through a projected 3D Virtual Reality interface. Within the

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Figure 3. *Simone Ferracina's Theriomorphous Cyborg* invites us to take a Uexkullian VR trip through the worlds of other animals.

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Figure 4. *Hive City*, Joyce Hwang, 2012.

alternate animal world, the human is able to experience sight, sound, touch, and smell through the senses of other animals. For example in the first level, sight is augmented with electro-magnetic sensory perception to simulate bird's eye viewing; on the second level real-time imagery is overlaid with pre-recorded footage to simulate the distorted vision and time perception from the vantage point of a snail. Each of the subsequent levels in Simone's proposed virtual reality environment sends the viewer further and further from his/her subjective reality.

Allison Hunter's portrayals of animal worlds, The Animal Super Powers project and several projects by Natalie Jeremijenko all perform similar de-humanising or un-humanising effects on the viewer. Indeed the general effect of the PAARP is to somehow tease, force, or push the human out of its own subjective reality and into the world of another animal. And somewhat unlike the "livable other worlds" of Haraway these are the *Umwelten*[5] of Jacob Von Uexkull.

In these PAARP we are asked to leave the comforts for our human-centric worlds and to join Jacob Von Uexkull on his famous sunlit walk in a wild, insect-teaming field.

> We begin such a stroll on a sunny day before a flowering meadow in which insects buzz and butterflies flutter, and we make a bubble around each of the animals living in the meadow. The bubble represents each animal's environment and contains all the features accessible to the subject, as soon as we enter into one such bubble, the previous surroundings of the subject are completely reconfigured. Many qualities of the colorful meadow vanish completely, others lose their coherence with one another, and new connections are created. A new world arises in each bubble.[6]

But instead of having to imagine each individual creature suspended in individual soap bubbles, we are now equipped with VR goggles and, in a retro-Harraway manner, with cyborgian, alternate animal-sensing devices attached to our appendages, we can step directly into the bubble-worlds of other animals—or so we are lead to believe.

One has to admit that there is an enormously attractive quality to the Post Animal Alternate Reality Projects. Other than simply being really fantastic projects (who wouldn't want to be a bat or bird for a few minutes?!) is the amazing potential to use these experiences to guide the design processes of the previous two groups of projects. And while they may not directly address the architectural or design considerations of the Synanthropic Habitats or Soft Structures, the potential for meaningful, if perhaps virtual, cross-species experiences is almost irresistibly seductive.

COSPECIES COSHAPING

So what is the total effect here? What can we learn from the three types of projects found on Animal Architecture? Currently we have seen projects that design new homes for animals, re-think human urbanism, and introduce us to virtual animal realities. And yet, the sum of the work, the conclusion

seems to always be out of grasp. The slogan for Animal Architecture is "Explorations in Cospecies Coshaping." A phase also borrowed from Donna Harraway.

Toward the end of the first chapter of "When Species Meet" Donna Harraway describes what, for her, Uexkull and Animal Architecture might seem to be an ideal state:

> My point is simple: Once again we are in a knot of species coshaping one another in layer of reciprocating complexity all the way down. Response and respect are possible only in those knots, with actual animals and people looking back at each other, sticky with all their muddled histories.... It is a question of cosmopolitics, of learning to be "polite" in responsible relation to always asymmetrical living and dying, and nurturing and killing." [7]

That sounds good, but is that what we have in the three groups of Animal Architecture projects here? Have we seen this condition of co-shaping effectively present in any of the projects discussed? I'm not sure.

For all of the projects what they seem to desire is this idea of co-species co-shaping—the reciprocal and intertwined layers of being and becoming across species. But the Bat Clouds, Bird Scrapers and Hive Cities shy away from close animal–human interactions, and the virtual reality games always remain just that—virtual. Behind all of this is the nagging reality of a human agent always pulling the strings, mediating the interaction and more or less designing the experience.

But we should not for these reasons lose faith in the project. The hope, the belief, is that the answer lies somewhere among this constellation of projects. That with continued work, research, combinations, permutations and evolutions of each, a virtual and actual world where animals of all kinds—humans and others actively participate in shaping and reshaping their respective lives—can be achieved.

The work collected here and on AnimalArchitecture.org has attempted to show that animals can be involved in the design and planning of a city, a home, a factory, and a farm. There is an obviously fantastic quality to many of the projects but designers and thinkers such as Joyce Hwang, Natalie Jeremijenko, Simone Ferracina, Donna Haraway, Cary Wolfe and others each show that such prospects are becoming increasingly popular and no longer completely out of the realm of the possible.

We have the theoretical backgrounds of Uexkull, Haraway, Derrida and others to guide us. What we need now are inventive and sensitive design scenarios to transform the theory into practice. It is the challenge of the designers, those who daily define and reaffirm certain proscribed ways of life, to set this new discourse into motion. Hopefully with time, some imaginative design work, humility, and some luck we may one day discover (build?) just such a world and achieve a sense of peace with our mess-mate co-designers, becoming one with many. ◆

ENDNOTES

1. Donna Haraway, *When Species Meet*, 4.
2. Donna Haraway first mentions the phrase *autre-mondialisation* in the opening pages of *When Species Meet* but it serves to set the framework for the entire book, often repeating the phrase through the text. I draw specifically from this first usage for the phrase on page 3 and then again later on page 41 where she translates it as "livable other worlds."
3. Donna Haraway, When Species Meet, 15.
4. ibid.
5. *Umwelt* is a central idea to the work of Jacob Von Uexkull. Generally translated as inner-world the *umwelt* is a composite reality made up and shaped by the sensing organs of an animal and its actions within that world. Uexkull however was quick to identify the somewhat reductive nature of this description and insisted that an analysis of the biological world could not begin with just a single organism any more than an ethologist could begin with the *umwelt* alone. As Buchanan points out, when framed this way the organism is never just one, and the *umwelt* always more than itself. Instead Uexkull urges us to consider the organism to resemble a community of subjects "just as much as we think about a community or city like a large organism." Buchanan, 29.
6. Uexkull, *Foray Into the Worlds of Animals and Humans*, page 43.
7. ibid page 42.