



Before you can see the light,
You have to deal with the darkness.

Light Pollution

Less than 100 years ago, everyone could look up and see a spectacular starry night sky. Now, millions of children across the globe will never experience the Milky Way where they live. The increased and widespread use of artificial light at night is not only impairing our view of the universe, it is adversely affecting our environment, our safety, our energy consumption and our health.

What is Light Pollution?

Most of us are familiar with air, water, and land pollution, but did you know that light can also be a pollutant? The inappropriate or excessive use of artificial light – known as light pollution – can have serious environmental consequences for humans, wildlife, and our climate.

- Glare – excessive brightness that causes visual discomfort
- Sky glow – brightening of the night sky over inhabited areas
- Light trespass – light falling where it is not intended or needed
- Clutter – bright, confusing and excessive groupings of light sources

Light pollution is a side effect of industrial civilization. Its sources include building exterior and interior lighting, advertising, commercial properties, offices, factories, streetlights, and illuminated sporting venues. The fact is that much outdoor lighting used at night is inefficient, overly bright, poorly targeted, improperly shielded, and, in many cases, completely unnecessary. This light, and the electricity used to create it, is being wasted by spilling it into the sky, rather than focusing it on to the actual objects and areas that people want illuminated.

How Bad is Light Pollution?

With much of the Earth's population living under light-polluted skies, over lighting is an international concern. If you live in an urban or suburban area all you have to do to see this type of pollution is go outside at night and look up at the sky.

Effects of Light Pollution

For three billion years, life on Earth existed in a rhythm of light and dark that was created solely by the illumination of the Sun, Moon and stars. Now, artificial lights overpower the darkness and our cities glow at night, disrupting the natural day-night pattern and shifting the delicate balance of our environment. The negative effects of the loss of this inspirational natural resource might seem intangible. But a growing body of evidence links the brightening night sky directly to measurable negative impacts including

- Increasing energy consumption
- Disrupting the ecosystem and wildlife
- Harming human health

We Can Help.

The good news is that light pollution, unlike many other forms of pollution, is reversible and each one of us can make a difference! Just being aware that light pollution is a problem is not enough; the need is for action. We can start by minimizing the light from our own home at night. We can do this by following these simple steps.

- Only use lighting when and where it's needed
- Properly shield all outdoor lights
- Keep blinds drawn to keep light inside
- Become a citizen helping to measure light pollution

Spread the word to your family and friends and tell them to pass it on. Many people either don't know or don't understand a lot about light pollution and the negative impacts of artificial light at night. By being an ambassador and explaining the issues to others you will help bring awareness to this growing problem and inspire more people to take the necessary steps to protect our natural night sky.

Turning off the lights saves energy—and it can help save wildlife as well. Light pollution—the luminous orange glow that haloes cities and suburbs—threatens wildlife by disrupting biological rhythms and otherwise interfering with the behavior of nocturnal animals. Now a movement is under way to turn off the lights, or at least turn them down, for the sake of all creatures that frequent the night. "Wildlife species have evolved on this planet with biological rhythms.

Light pollution comes in five forms:

Urban sky glow

While it sounds kind of poetic, the brightening of the night sky over inhabited areas is actually responsible for the disappearance of the Milky Way and stars from many areas. As IYA2009 points out, "increasingly, the most important equipment needed to enjoy the wonders of the night sky is an automobile with a full tank of gas and a map."

Light trespass

Noise complaints aren't uncommon, but how about light complaints? This might happen with light trespass, when unwanted light enters private property, be it from a neighbor, passing headlights, or street lamps.

Over-illumination

This often overlaps with urban sky glow and occurs when excessive light is used to bring attention to an important building. Landmarks, historic buildings and attention-seeking skyscrapers come to mind.

Glare

When unshielded light from one source spills into the sky and elsewhere; glare can reduce visibility and can be blinding.

Light clutter

Excessive groupings of light that are bright and confusing, commonly found in over-lit cities and inhabited areas. The proliferation of clutter contributes to urban sky glow, trespass, and glare.

MAMMALS

Dung Beetles Navigate Using the Stars. Nocturnal animals have evolved to function at night. The night, in a very real sense, is a very important part of their environment—no different than trees and food. Their eyes are very sensitive to light, similar to your eyes when you first wake up or walk out of a dimly lit room into the sunshine. Animals such as bats, raccoons, coyotes, deer, and moose rely on the dark for a variety of natural functions. These species, among others, experience a decline in reproduction and a difficulty foraging for food.

Birds

Artificial lighting seems to be taking the largest toll on bird populations. Nocturnal birds use the moon and stars for navigation during their bi-annual migrations. "When they fly through a brightly-lit area, they become disoriented, The birds often crash into brilliantly-lit broadcast towers or buildings, or circle them until they drop from exhaustion. Seabirds are also at risk. The birds may be fatally attracted to lighthouses, offshore drilling platforms, and the high-intensity lamps used by fishermen to lure squid to the surface. "It's not that we wouldn't expect birds to die from human activities—but it is our responsibility to minimize that mortality.

Reptiles Under the Spotlight

Light pollution also endangers sea turtles. Beaches are highly developed coastline are nesting ground for rare loggerhead, leatherback and green turtles. Bright lights nearby discourage females from coming ashore to nest. Newly hatched turtles need a dark night sky to orient themselves toward the sea, but artificial lights behind beaches lure them away. "Hatchlings are attracted to lights and crawl inland, or crawl aimlessly down the beach, sometimes until dawn, Researchers are examining the effects of artificial lighting on many creatures. To avoid predators, some animals—like some snakes, salamanders or frogs—restrict their movements under a full moon and tend to hunt more on moonless nights. Others forage just after dusk. But some lighting never allows darkness to fall.

Dark Skies as a Natural Resource

Designating a dark sky as a natural resource which is as worthy of protection as an old growth forest or a scenic river may seem odd, but biologists worry about the ultimate impact caused by this little understood ecological disturbance. Saving energy also makes economic and political sense. For wild creatures,

On: Insects

Almost all the works in this series feature insects. Insects are some of the smallest forms of fauna with dot our planet. These creatures barely ever register themselves in our grand drama of the world, yet they are key players. Despite their insignificant stature they are the most populous inhabitants of our planet found in every known biome in the planet. Just the number of ants in the world would outweigh the combined human population of the planet almost 10 to 1. They are everywhere, inside our home, out in nature, and even at the edge of an active volcano.

Insects make the world go round. Quite literally. They create the biological foundation of all terrestrial ecosystems. Without them the ecology of the planet would fall apart.

On: Light

This series deals with light, more particularly artificial lighting which is used (over)abundantly in modern society. Light plays a major role in these works as a chief pollutant which has been responsible for the accelerated background extinction rates of insects and many other species of fauna. Particularly in urban environments. Artificial light confuses insects which mistake it for natural light. No one living in an urban area is unfamiliar with swarms of insects crowding streetlights and floodlit hoardings. Likewise, the piles of dead insect corpses littered around them is also a familiar sight. Light pollution has myriad detrimental effects. It disrupts mating patterns, throws off the circadian rhythms, particularly in nocturnal species, and makes them more vulnerable to larger predators. Simply put the over-abundance of artificial lighting which humans rely on have an apocalyptic consequence. It has been a key factor in the collapse of insect populations. This has the potential for setting off a negative butterfly effect on planet's ecology. Which in turn will have drastic consequences for the global economy due to emergent agricultural collapses and grave food security crises which are erupting worldwide.

The Ant population of the world is roughly 10 billion billion and would weigh a combined 3,000 million tons, while all the human beings combined would add up to around 350 million tons. source: <https://www.npr.org/sections/thetwo-way/2011/11/03/141946751/along-with-humans-who-else-is-in-the-7-billion-club>

<https://www.sciencemag.org/news/2016/07/bee-lives-edge-active-volcano>

<https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118945568.ch2>

<https://www.theguardian.com/environment/2019/nov/22/light-pollution-insect-apocalypse>

<https://www.theguardian.com/environment/2019/feb/10/plummeting-insect-numbers-threaten-collapse-of-nature>

The report concluded that insect species and pollinators are in severe decline, with 41% of all insect species in decline and one-third threatened with extinction... Pollinators contribute directly to around one-third of global food production, with 75% of our most important crops dependent on pollination by insects, which makes insect decline a serious concern for food security. source:

<https://www.euractiv.com/section/agriculture-food/news/industrial-agriculture-linked-to-insect-collapse-says-new-report/>

Abstract

The series of images presented try to bring out the corrosive relationship between light and the invisible bearers of our ecosystem. The usual invisibility of insects, and other creatures are countered by these images. Here they dominate the image. In many works insects are hyper-sized to a surreal degree, while others place the creatures in jarring contexts or unusual juxtapositions. Their bodies are often uncomfortably interacting with, or inscribed with light, technology, urban landscapes, or cartographic imagery. These interventions create a psychic space where these creatures to have a strong visual presence which stands in contrast to their minimised presence in reality. This reoriented psychic space also alters for the viewers' perception of reality and their place in it. Si-multaneously, as it magnifies the presence of these creatures, it also inversely shrinks down the viewer allowing them to experientially interact with the art from a flipped perspective. In other words the viewer and the subject swap their usual places.

This inversion carries forward in the narrative of the art beyond simple position and scale. Creatures like insects are often seen as the encroachers in human contexts - visualised as pests. However the vo-cabulary of these images inverts the metaphor of encroachment, and reframes humanity as the invasive species. Human technology, cartography, and various metaphors of the urban bleed into these creatures — as scars, appendages, malignant growths etc. — wounding them, choking the life out of them. In the world of this art we become the pests.

Ultimately these works try to engage the viewer with an empathetic perspective on behalf of the crea-tures we find very difficult to empathise with. It also tries to complicate our perception of one of hu-manity's greatest technological breakthrough—artificial lighting—and asks us to reconsider the im-mense collateral damage inflicted by it. Most importantly it just asks us to be better caretakers of nature, on behalf of those who cannot.

In Conversation with: Benzamin

Q: What was the impetus behind creating this series?

A: I have always been deeply concerned with the trajectory of our society and how little regard we have for nature. My other works have also been exploring this area. Here I chose insects because they easily escape our observation compared to more dramatic examples of natural collapse. Secondly I also wanted to explore the contradiction of our environmental awareness, and our simultaneous denial of it in the practice our everyday life. Sometimes in ironic fashion. I recall how I saw I hoarding in Delhi for a public awareness campaign about pollution and environmental damage. Yet that very hoarding was brightly lit in the night, buzzing with insects - ironically causing further environmental damage itself. Any concern we seem to exhibit for the environment appears to be a performative simulation.

Q: Of all kinds of pollution, why choose light as the thematic focus of your work?

A: Because it is the most ubiquitous and least understood. Moreover apart from the ecological message highlighting the menace of light pollution I am equally fascinated with the concept of the night sky and how it exists in society's imagination. You see, with the advent of artificial lighting, the unblemished night sky dotted with stars is something that has slowly seeped away from the everyday the fantastic. For an entire generation of young people who have grown up in cities the starry night is an almost alien concept. A romantic dream. I am trying to process the nature of that loss.

Q: Speaking of the fantastic, how do you visualise our relationship with fantasy?

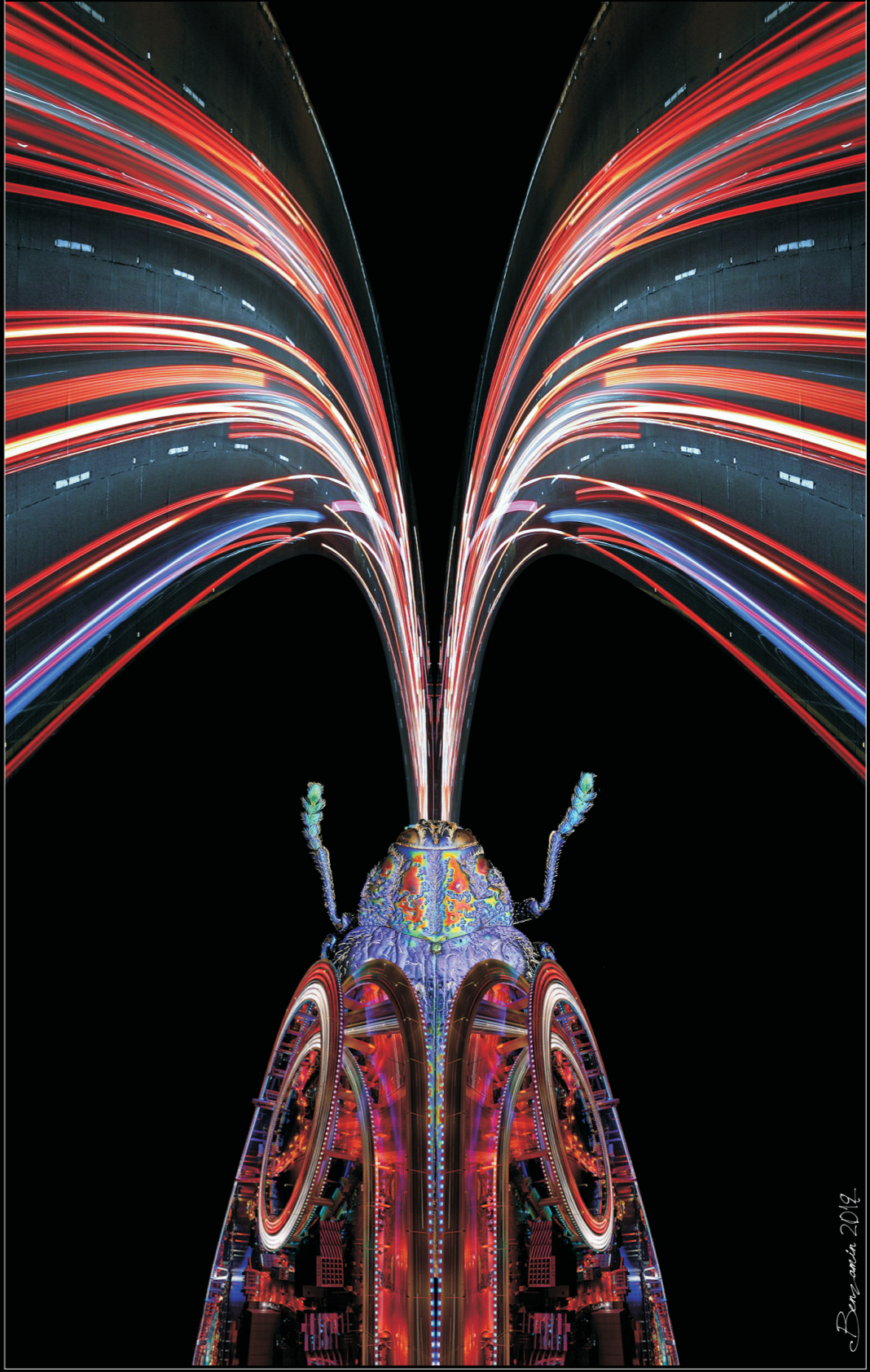
A: As far as I am concerned we are all possessed by fantastic desires. However the problem is that most desires weren't always fantasy to begin with. There is a changing relationship between fantasy and reality. The dream of an unpolluted night sky serves as a great example for something that is slipping away from realistic to fantastic. There is an erosion of our reality where things we could take for granted are becoming increasingly outlandish, fantastic. Conversely something dreamlike such as being able to observe the planet's surface flying thousands of kilometres up in the sky is entirely within the realm of possibility thanks to human technology. Yet on the other hand something like field of fireflies, which used to be fairly common in my childhood is slowly slipping away into the fantastic. In such a world what is fantasy? What is real. What are dreams? This needs to be explored.

Q: Your images incorporate a lot of cartography, urban topography, cityscapes, etc. What's up with that?

A: First of all it reinforces the city, or the urban landscape as a key theme. Other than that I present a critical image of mapping and planning. It serves as a method of visualizing control and legitimizing ownership of things which inherently defy the concept. These metaphors in my images serve proof of the parasitic domination of the human over nature. Having these inscribed onto the body of these crea-tures signifies their pain. The absurdity of this artistic representation becomes a reality check for us, highlighting the perverse futility drawing lines, claiming ownership of the world and reshaping it to only serve one species. As far as I am concerned maps are a sacrilege. They should never have been invented.



Benjamin 2019



Benzonia 2019

