## LOG:: 05 All Flows - Dancing *über*

Camera as Fonteyn, operator as Nureyev would be ideal - a dance partnership capable of any vector of graceful motion within the range of the operator’s hands, arms, and legs.

Garrett Brown

You spin me right round, baby

Right round like a record, baby

Right round round round

Dead or Alive, 1985

An ancient bell rings: πάντα ῥεῖ—all flows. This is how the pre-Socratic philosopher Heraclitus described the essence of the universe. Later, Plato would rephrase this and say that a man can never enter the same river twice. What holds for the river must also be true for man: humans change; they do not stay the same over time. Every perception, every experience, changes how we think. Experiences themselves also change.

**Substance - Substantial Motion**

We see video as an emanation, a surplus that adds to the world (emanation, from the Latin emanare meaning *to flow from*). Still, we live in Video Worlds or *Umwelten*, which define how we perceive and interact with it. We understand the world by simply following sensations; watching or viewing entails following stimuli in various frequencies or instants. Philosophically, the substance of Video is not the image at all, not a picture, or a cinematographic definition.

Azadeh Emadi explores the essence of digital video through the lens of Mulla Sadra's philosophy, emphasizing an "inside-out" perspective.[[1]](#footnote-1) She argues that while Gilles Deleuze acknowledges the image's composed nature (molar), he also recognizes the underlying *becoming* at the pixel level (molecular). Similarly, Sadra's view posits stability and form as arising from motion, aligning with Deleuze's concept of becoming.

Unlike analog film, with its static frames creating the illusion of movement, digital video presents a single, constantly evolving image. These internal changes, driven by pixels, reflect a relationship with the external world. The code is informed by the filmed object, causing movement and changes within related digital elements. Pixels, like us, possess an inherent *destination* that encapsulates the universe's destinations. As microcosms, they contain the *seminal reasons* of the larger world, and their *substantial renewal* mirrors the renewal of all existence.

This concept of *Substantial Motion* suggests that digital video, with its unified yet ever-changing pixels, has the potential to more truthfully represent reality. It exists in infinite time, forming a moving image unit while its internal elements constantly transform.

In contrast, the identifiable frame of analog film creates a sense of representation, separating us from the image itself. It becomes a window to observe, not a portal to explore. This *looking at* approach closes interpretive possibilities. Emadi proposes *looking into* the image, experiencing it, and discovering its potential connections to other entities, beings, and images. From this perspective, digital video challenges our perception of a stable, identified image. Our own perception creates the division between entities in the world, including the distinction between an image as representation and the object it represents.

**From Motion to Movement**

Birds never fly backwards. Aristotle viewing the world and reflecting on its choreographies, describes an exponent when he concludes that *In nature nothing has a movement backwards*. Aristotle’s *law of movement* has *its actuality in the consequent*, and applies *alike in figures and things animate*, constituting a series, *each successive term of which potentially contains its predecessor*.[[2]](#footnote-2) Movements are world making.

We are moving. Objects in a frame are moving. Through montage and editing in film, movement takes place between framed images. The recording, streaming camera is moving. Lenses are moving, zooming in and out. The signal is moving. Data is changing. Everything moves.

Cognitive neuroscience sees human experience as a form of relational experience:

We live in relation with other people, objects, landscapes that are present in our real world, but also live in relation with people, objects, landscapes that come to us within the imaginary worlds displayed by the arts.[[3]](#footnote-3)

Does each form of movement imply a particular form of a relation between us, others, objects, screen, screen objects and so on?

An illustrated letter, a single folded page sent by Jean Tinguely to a 16 year old, rubbed superhero’s, unfortunately lost colorful small feathers, found objects, and a confirmation of obsession with movement.

Fascinated by his sculptures, I had written to Museum Ludwig in Cologne to forward a letter to Jean Tinguely and received a surprisingly personal answer. Movement, since Tinguely’s response has followed me as a central element in my career as a filmmaker, editor and producer, as an artist and writer, but also, and mainly, in my continuing reflections on video, cinema and the post-digital. Tinguely’s kinetic art not only just represented movement: crazy, silly, and ironic. His sculptures embodied fundamental ontological and social processes, emphasizing dynamism, change, and the breaking down of static forms. An interesting parallel seems to be appearing in the world of online video and social media platforms. Short, looping videos capture our attention through constant motion, a digital obsession. TikTok in particular has become known for its fast-paced, constantly moving content. Users scroll never-ending streams. An aesthetic of instability, a constructive instability, dominates our platform culture. Obviously, maybe even in different realms, this digital kinetic obsession might echo Tinguely’s mechanical curiosities. The worlds of his kinetic sculptures and those of online videos would seem to be miles apart, but the embedded principle is a fasciation with movement and its ability to captivate, surprise and convey meaning, ephemerally, pointlessly, but fundamentally: a continuum of artistic and cultural exploration of motion.

**Curiosity**

Cinema, and I always come back to this at once relative and solid definition of the *visual (moving images)*, is an in-depth study of movement. Video is its fluid state, component, or appearance, just as ice is a specific state of water (though here, a solid state). The history of cinema is, at the start, critically tied to the study of movement. The invention of all the tools that led to the making of cinema aimed, it seems, simply at the analysis of the body. Wasn’t it one of the first curious questions answered by a camera recording: a gun shooting a sequences of images confirming that the legs of a horse sometimes don’t touch the ground? The cinematic apparatus realizing itself now in video or the visual was designed as an investigation into optics, bodies, motion, and physiology. Movement is the first motivation for technological development.

From 1895 until 1900, films of fact, or ‘actualities’, capture the imagination. Running up to five minutes, films of fact focused on everyday events such as New York in the Blizzard. Filmmakers began to record specific events, for example, The Kaiser Reviews His Troops and The Spanish Coronation. The novelty of movement yielded to a desire to edify, and the use of the camera for documentation was explicit in these early films (see Jaeds 1979: 2-3). Film became recognized as a tool capable of recording events that could be shown again and again to those who were unable to witness those events in person. All of these films were shot in a single take, that is, in one camera run.[[4]](#footnote-4)

The cinematic apparatus not only captures the movement of objects before it; it also includes two essential kinds of movement in itself: it moves and the recording medium

moves, transporting fixed images in time. The recorded movement is an illusion

created by the recording and transporting of still images, which are nothing else than

frozen photographs of motion, instants in sequence. The discovery of the moving motion picture camera sets in motion the aesthetic and ethic of cinema and the cinematic apparatus. The moving picture camera allows one to take control of the viewer’s perspective. The movement of the camera introduces a new powerful relation between the subject and the camera. Movement by itself creates significance. The camera moves and changes the perspective of the viewer, and the camera frames and shows us only a part of an object/subject. There is something outside the frame, what the camera doesn’t show, and there is something inside, which is related to it. The outside and the inside create a dramatic attraction. Object movement and camera movement create a rhythm, a fluent and magic atmosphere. All together it’s the cinematic combination of time and space. Its part of the language, the syntax of film.[[5]](#footnote-5)

The moving camera adds *kinaesthetic*, bodily, tactile cues as well as the sense of balance and gravity. The visual appears live. The camera motion is bodily, the experience mobile. There is the affect of an intentionality and subjectivity, and a bodily appearance. While obviously being in the real world a viewer might subjectively locate herself aesthetically in a film or movie, and relate to the cinematic visual.[[6]](#footnote-6) We are there. We are given the missing information for shape, size and layout, and depth of space. The camera itself might become like another person. It is connecting me, making me involved, taking me by the hand. The fluidity of movement gives me a sense of immersion. And when it shakes, it is, of course, my over-excitement.

*Cinematography is a writing with images in movement* … Robert Bresson defines cinematography as the act of filmmaking.[[7]](#footnote-7) The Russian filmmaker Dziga Vertov idealized the camera to the extreme. He called the moving camera, in combination with editing, the *kino-eye*. The camera is superior to the human eye, able to see at long distances, to film in slow or fast motion, taking extreme perspectives, going where we can’t. In the editing process, scenes from different times and places could be cut together and united. The *kino-eye* was liberated from the confines of time and space. A *kino-eye film* was able, Vertov believed, to reveal a deeper level of truth in the world than was normally perceived by the all too imperfect human eye.[[8]](#footnote-8)

I am kino-eye, I am a mechanical eye. I, a machine, show you the world as only I can see it. Now and forever, I free myself from human immobility, I am in constant motion, I draw near, then away from objects, I crawl under, I climb on to them. I move apace with the muzzle of a galloping horse, I plunge full speed into a crowd, I outstrip running soldiers, I fall on my back, I ascend with an aeroplane, I plunge and soar together with plunging and soaring bodies. Now I, a camera, fling myself along their resultant, manoeuvring in the chaos of movement, recording movement, starting with movements composed of the most complex combinations. Free of the limits of time and space, I put together any given points in the universe, no matter where I’ve recorded them. My path leads to the creation of a fresh perception of the world. I decipher in a new way a world unknown to you.[[9]](#footnote-9)

Camera movement has, within the means of cinematic design, an extraordinary position: when and how the camera moves might have a lot to do with this position, and from what perspective and with what kind of aesthetic the viewer shall experience the film is central to design and expression.

Is the world passing by or are we in the middle of everything? Does the audience experience the scenes as a quiet, slow river or a high-dynamic, wild ride? A basic assumption of cinematography is that the camera determines a way of seeing things.[[10]](#footnote-10)

**a phone in a cage**

Digital filmmaking allows for extreme long takes or plan sequence, while at the same time generating an ocean of ultra-short videos. Cage’s frame might include a simple long movement of either an object inside, outside or with, or a multitude of movement, changing signals throughout time and space.

Movement might be a matter of walking or stabilization, hand held or technically supported, attached to a cage, gimbal or drone, extended image making with mechanical and optical extensions or generated and enhanced signals.

What is the difference between an amateur and a professional camera? The answer is very visible: the amount of manual control and the supporting tools. Actually, the professional camera doesn’t hide its lens; it’s visible and controllable to give the most possible effect on the image.

**Who else dreams of flying?**

The opening of Shining. Aerial Shots. *Dies Irae*, the music accompanying. Many movies establish location in their first moments of screening through aerial imagery. Across film history, this practice claims that *you are here, in the space of the movie*.

Aerial views of landscapes, people and objects moving and following from above had long been out of the reach for the general public. We move our bodies about on the ground, on feet, on wheels, motorized, on water in boats, in the air by plane. But, we need to rent a plane or a helicopter, or, as in Cappadocia, book a touristic hot air ballon tour for a day to see from above. Sight-seeing adventure.

The earliest forms of aerial imagery predominantly centered on urban landscapes, whether through *bird's eye* perspectives or the pioneering aerial photographs taken by Felix Nadar and his son in the mid-1800s, as they captured Paris and its surroundings from their balloon. With World War I and finally World War II, aerial photography brought to the foreground the broadest scale of devastation. The imagery of destroyed cities, bombed from the air, dominates the archives of aerial photography.

Even as everything seen by the cameras on planes was being documented and as photographs from the air were analyzed and archived, looking and seeing did not necessarily entail the discovery of objects on the ground. Despite photographing Auschwitz from the air already early in World War II, the Allies were not aware of the concentration camp. They simply were not looking for it, as Harun Farocki showed in detail in his documentary.[[11]](#footnote-11) The aerial images are flat.

In a form of movement and aerial photography combined, a boom in the availability and use of drones has led to the ability to easily produce videos from above. Drones, or unmanned aerial vehicles (UAVs), include a diverse range of remotely controlled or autonomous flying devices. These can take the form of fixed-wing aircraft, resembling small airplanes, or multi-rotor systems similar to helicopters. Modern drones can be operated by mobile applications, wearable devices, or specific dedicated ground control stations. Drones typically include cameras and sensors, enabling them to capture and transmit or record visual data in real-time. For military and public safety purposes, drones serve crucial roles in surveillance and emergency response. They are used for agricultural tasks, mapping, and disaster management, as well as, of course, news coverage. Event organizers employ drones to monitor crowds and provide live streaming capabilities. Real estate agents leverage them for house sales. The television and film industry embraces drone technology to capture dramatic aerial footage. For tourism, the use of drones to produce videos has generated a large amount of visually appealing footage of various destinations, attracting much attention on social media.

The COVID-19 pandemic transformed urban landscapes into strange empty spaces, captured through contrasting technological perspectives. Drone footage documented deserted metropolitan areas, showing sterile streets and vacant public spaces from above. These aerial views presented cities in an almost surreal state, simultaneously familiar yet altered, creating a visual record of an unprecedented moment in urban history.

These drone perspectives stood in sharp contrast to the intimate, close-up views of life during lockdown captured through video conferencing platforms like Zoom. The pandemic created a visual dichotomy: the vast, empty spaces seen from above versus the confined, personal spaces viewed through screens. Within these aerial views, occasional signs of life—whether human activity, wildlife, or vegetation—served as reminders of the persistent vitality beneath the apparent desolation, creating a complex interplay between the built environment and natural elements that continued to thrive. If drone footage documented a sense of loss and disconnection, narratives emphasized emptiness. A video from New Delhi titled *Incredible India: Before and After Lockdown* suggests a transition from a past of contact to a future of absence. What this footages does not capture is the underlying health crisis: the virus itself remained invisible, creating a disconnect between visual documentation and actual threat.

These videos excise the relational by displacing it onto the technological and the visual, but they also displace the profound social horror and hysteria of not seeing or knowing where the virus is: it is nowhere, elsewhere, everywhere, impossible to visualize with the human eye.[[12]](#footnote-12)

**Time suspended**

In 2014, British filmmaker Danny Cooke released a compelling short film that resonated deeply with viewers. The three-minute video, published on Vimeo, combines striking visuals with an atmospheric musical score. The somber footage, partially captured using drone technology, provides a haunting perspective of Chernobyl's abandoned cityscape. Cooke shares his personal connection to the project, noting that the 1986 nuclear disaster occurred in the year of his birth and impacted his own family during their time in Italy. He describes Chernobyl as one of the most fascinating yet hazardous locations he has encountered in his work.[[13]](#footnote-13) The filmmaker reflects on the distinctive atmosphere of the abandoned city, observing that it possessed both a serene and deeply unsettling quality. He describes the location as a place where time appears suspended, surrounded by echoes of the past.

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The emergence and impact of drones represents a significant technological development of the 2010s, particularly in how they reshape social and political relationships through remote observation. Aerial drones have gained the most attention through their military applications. Drones serve as tools of global surveillance and power projection. Space collapses through networked digital technology. As they become consumer products, available through retail channels, ethical and privacy concerns rise, with surveillance risks overshadowed by their entertainment value. The transformation of military technology normalizes surveillance, as well as remote engagement and the nature of technological mediation.[[14]](#footnote-14)

**Blue Sky Days, unblemished by a single cloud**

I no longer love blue skies. In fact, I now prefer gray skies. The drones do not fly when the skies are grey.”

This striking observation is from Zubair Rehman’s 2013 congressional testimony on U.S. drone campaigns. The photographer van Houtryve later incorporated Rehman’s observation into his series title *Blue Sky Days*. Rehman's testimony provided a profound perspective on how drone operations affect civilian populations in conflict zones. His grandmother had been killed by a drone strike in Pakistan's border region in 2012, an incident that also left him wounded by shrapnel. This poignant statement reveals more or less how drone warfare has fundamentally altered even the most basic human experiences, transforming a blue sky into a source of anxiety and fear.[[15]](#footnote-15)

Yes, weather plays a role in war. Carl Clausewitz knew this when he pointed out that it is fog that clouds the enemy and yourself. *Fog makes vision uncertain.*

‘Fog functions’…to give shape to the vague and unpredictable; it is evidently not as foggy as ‘uncertainty’ itself, which it is supposed to make more tangible. This fog does not obscure so much as it provides a form, albeit a hazy, shifting one, for something more abstract that is not directly accessible to the senses…Fog straddles the literal-figurative divide, representing intangibles, clarifying other figurative terms, and sometimes standing in as ‘itself,’ a meteorological phenomenon in the atmosphere.[[16]](#footnote-16)

Invisibility is a refuge. So, why do we need or want images at all? Do images give us real connections, relations, empathy and care for others? Do they bridge the distance between me and their devastated situation, their suffering? We look at people on the ground, people without faces. Do they exist? Is this the basic condition of drone warfare?

The ability to hide and deny a drone strike is not an insignificant side effect of this technology, but a central part of a campaign that relies to a great extent on secrecy and deniability. The violence inflicted by drone warfare is thus typically compounded by the perpetrators’ negation: the violence against people and things redoubled by violence against the evidence that violence has taken place.[[17]](#footnote-17)

Drone vision is intimately uncanny. The extended capacity of perception makes the drone a paradigmatic figure in our networked world, generating anxious ambivalence.

If we think about how we've traditionally captured images of war, from battlefield paintings to war photography to combat footage, we realize, as Paul Virilio pointed out, that military technology and visual technology have always developed hand in hand. Drones have changed this relationship.

Unlike a soldier looking through a rifle scope or a war photographer peering through a lens, drone vision creates something entirely new: a perspective that's fundamentally detached from human eyes. While traditional war imagery tried to capture what a person would see if they were there, drone footage shows us something we could never see by ourselves: a cold, distant, algorithmic view of the world below.

This is a new way of seeing which isn't just changing warfare, it's seeping into art, activism, and popular culture. There is something more strange and elusive about drone imagery. Unlike a photograph or video that feels like a direct window onto reality, drone images feel more remote, more processed, more digital in their very nature. They're creating a new kind of visual evidence that we are still trying to understand.

This matters because we've long trusted what we can see with our own eyes, or at least through technologies that extend our natural vision. Photos and videos have carried weight in courtrooms and shaped public opinion precisely because they seemed to show us *what really happened*. But drone imagery is different; it shows us something no human eye could see, from perspectives no human could naturally achieve. This raises fascinating questions about how we should interpret and trust these new kinds of images that are increasingly shaping our understanding of events happening around the world.[[18]](#footnote-18)

Drones symbolize our social media age, capturing images that reflect both the beauty and strangeness of the world while also serving as tools for surveillance and data collection.

Drones operate by analyzing human behaviors and patterns through continuous monitoring, allowing operators and algorithms to identify significant events and anomalies. This capability is crucial in military contexts, where understanding daily activities can help anticipate potential threats. The goal of drone surveillance is to differentiate between normal and abnormal behaviors, thereby enabling preemptive actions against perceived threats.

Drone surveillance contributes to a form of governance that determines who has the right to live or die based on data analysis. This leads to a visual economy that reflects operational chaos rather than divine order, highlighting the role of drones in maintaining a state of exception in societal control.[[19]](#footnote-19)

The drone is an experience of weightless dominance in its displacement and augmentation of the ‘metabolic vector’ for the ‘void’, not so much of speed, but of invulnerability.[[20]](#footnote-20)

**Sit back and enjoy!**

*This is Scotland in its most stunning form, as seen from the sky by a DJI Inspire 2. John Duncan has done it again with his new film Ancient Scotland*.[[21]](#footnote-21)

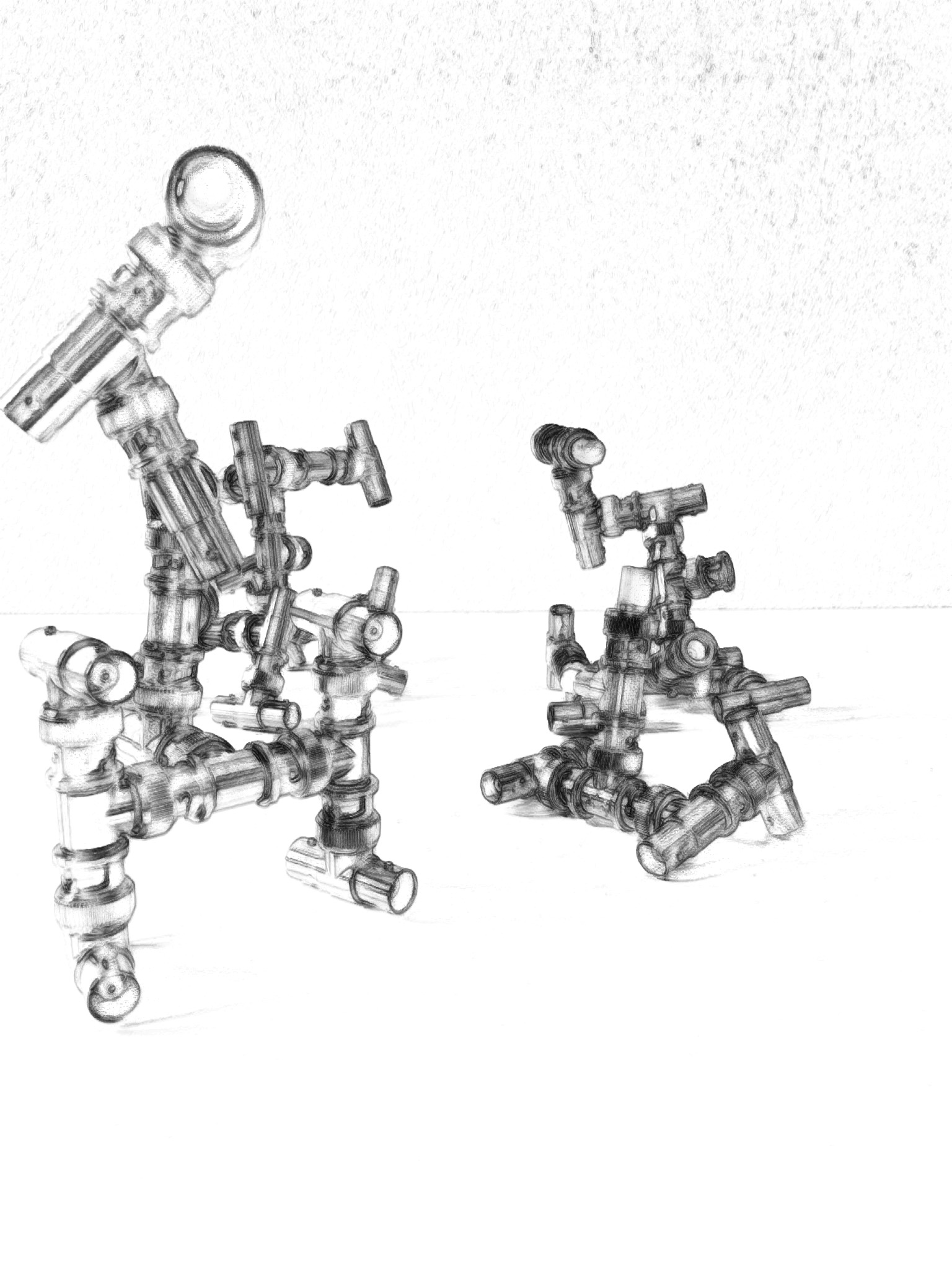


Fig. 6 CO-EXIST WITH YOUR COAX

Finally a variety of BNC adapters and other ancillary items are available. One popular BNC adapter is the straight through adapter, allowing two cables with male connectors fitted to be connected end to end. Other "T" adapters are also available. These have a male plug at the bottom of the “T" and two female connections at either end of the horizontal of the "T". These are ideal for use with oscilloscopes where a through connection needs to be measured, and the "T" BNC adapter enables the required connections to be made.[[22]](#footnote-22)

The sockets or female BNC connectors also come in a number of flavours. The very basic BNC

connector consists of a panel mounting assembly with a single connection for the coax centre. The earthing is then accomplished via the panel to which the connector is bolted using a single nut. Large washers can be used to provide an earth connection directly to the connector. Some of these connectors may also use four nuts and bolts to fix them to the panel. These arrangements are only suitable for low frequency applications, and not for RF. Where impedance matching and full screening is required. Most surveillance DVRs and CCTV cameras have BNC female output.

There are two main variants of the BNC connector assembly method:

• Compression gland type

• Crimp type

The compression gland type has the centre pin of the connector which is usually a solder pin and

the braid and sheath of the cable are held by an expanding compression gland fixed by a nut at the rear of the connector. This type of connector by its nature can cope with a (limited) range of cable sizes and requires no specialised tooling to assemble. This makes it ideal for small quantity production, either for one off cables for laboratory use of for limited production runs.

The crimp connector has the centre pin which is normally crimped to the centre conductor. This

crimped pin is then pushed into position through an inner ferrule which separates the inner

insulation sheath and the braid of the cable. An outer ferrule is then crimped over the braid and

outer insulation which fixes the cable to the connector. Greater accuracy is required for the crimp

style connectors and therefore the correct connector variant must be chosen for the cable being

used. This may result in a crimp style connector not being practicable for some cable types. In

addition to this the assembly requires the use of the correct crimping tools to ensure that the

connector is correctly crimped. While these connectors are always preferred for large production

runs because they are much faster to assemble, it is not possible for them to be reworked for

obvious reasons.

For both styles of BNC connector it is essential that the exact amount of insulation is stripped from each section to ensure accurate assembly and the required RF performance.[[23]](#footnote-23)

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