## On \$\pi\$ and around

Thus, if human consciousness operates with fuzzy, probabilistically weighted sets of concepts, is it possible to introduce this system of concepts directly into our language? The experience of statisticians, representatives of the subjective probability interpretation, shows that it is extremely difficult, if at all possible, to extract from people prior, probabilistically given ideas of some familiar phenomenon. Though such fuzzy knowledge almost certainly exists, people for some reason or other will not, or perhaps cannot, transfer it to others. This barrier is erected by our culture: it is not customary to reveal the process of thinking; hence, communication goes on at the discrete level.

Vasilij Vasiljevitj Nalimov<sup>1</sup>

Eva Löfdahl is an artist with an extraordinary interest in concepts and how they can be communicated. This has been clear ever since she emerged around thirty years ago. She is a free agent in the best possible sense. Unfettered by preconceptions, she challenges established truths and produces multiple meanings in her art. Eva Löfdahl has gained recognition as a painter and sculptor, but also with more elusive works that are harder to categorise. She has successfully adopted various formats, from concise gallery exhibitions or text-based

investigations verging on the private to substantial public commissions in prestigious institutions and historically significant urban centres. Her ideas are always razor-sharp, and so is their execution. Eva Löfdahl is one of the most significant artists in Sweden. Her solo exhibition is an important project for Lunds konsthall.

π and around is not a retrospective survey. It would of course have been possible to gather a selection of works in different techniques from different phases in Eva Löfdahl's career: the collaborative manifestations of the Wallda Group in the early 1980s (including the exhibition Lacuna at Lunds konsthall in 1984), her sculptures from the 1990s, documentation of her projects for public space, the more recent research-orientated text and image works. But instead she has chosen to put together an exhibition that highlights some of her newest works and confronts Lunds konsthall as an architectural and mental space, turning it into a showroom for her own take on contemporary sculpture. We are very pleased with this decision.

No one who is familiar with Eva Löfdahl and her art will doubt that the dimensions we encounter in the exhibited works are only the three most visible ones. There is a lot more for us to enjoy if we can only expand and fine-tune our receptive abilities. The three-dimensional mode of address is a starting point, but absolutely no end in itself.  $\pi$  and around should rather be considered an exhibition-as-text, with sentences and words that could only be formulated in exactly these materials and dimensions. Some of the works are relatively easy to classify as 'sculptures', regardless of how

they are manufactured, while others require the definitions 'object', 'readymade' or 'installation'. As we will see, such terminological deliberation is not fundamentally important for our understanding of Eva Löfdahl's art. Her exhibition is probably best described as a multi-dimensional text, or perhaps even better as a field of meaning that underlies and supports the text.

The Soviet mathematician Vasily Vasilyevich Nalimov (1910-96) is nowadays practically unknown, except in the northern city of Syktyvkar. This is the capital of the Republic of Komi, a territory larger than France but with just above one million inhabitants. The Komi people are related to the Finns and have been under Russian rule since the Middle Ages. Nalimov's father was a pioneering Komi ethnographer who, like his son, was imprisoned by Stalin. Nalimov may seem obscure and peripheral to our present context, but in the 1970s he published several interesting books, which have been translated into English. His topics were probability theory, modern physics, language and the unconscious. What interests us here is his speculative approach to the fuzzy sets of mathematics (sets with graded membership) and the semantic fields of linguistics (an analytical tool for revealing relations between synonyms).

It is obvious from the opening quote that Nalimov is investigating the dialectical tension between thinking, a continuum, and language, a system operating with discrete elements. His particular interest is how we use metaphors (the productive and unpredictable 'transfer' of meaning from one concept to another) to circumvent the prohibition against self-contradiction that logic enforces. He regards the unconscious as a

fuzzy semantic field, so large and powerful that it includes the totality of meanings and conceptual contradictions and therefore blurs the boundaries between the individually configured Self and the 'transpersonal'.

When the words' semantics are infinitely fuzzy, they naturally cease to obey logic. Texts no longer contain contradictions, since they are composed of words with fuzzy semantics smoothly gliding into one another. If, say, we start to meditate over the word 'life', expanding its meaning, we shall see sooner or later that it includes the concept of death as well: death becomes a component of life.'

For Eva Löfdahl and many of her colleagues artistic practice is a carefully thought out method for establishing contact with the collective and with contemporary society. Her art is not rarefied, not an isolated phenomenon. It seeks contact, but also insists that the conventions for communication be re-examined. Like other prominent artists Eva Löfdahl is not satisfied by the ideas that have already been absorbed by people around her. She always wants to go further, even if it means leaving others behind. This might explain her recurrent interest in concepts, methods and forms borrowed from science. She has often found them more useful for her analysis of cultural phenomena than the body of ideas normally associated with visual art.

It does not feel far-fetched to connect Nalimov's fuzzy and probabilistic semantic field with Eva Löfdahl's exhibition at Lunds konsthall.  $\pi$  and around can easily be seen as an expanded field rather than a finished narrative or a collection of works sorted by theme, technique or production year. One advantage of treating

the exhibition as a semantic field is that we can start our description wherever we want. The field is not hierarchically organised. That is why we ought to begin 'in the middle', even if there is no given centre. The list of works in this catalogue was, however, sequenced by Eva Löfdahl herself and represents a planned walk through the exhibition. Also, it is perhaps already clear that the illustrations do not show the works as they appear in Lunds konsthall, but instead gives an impression of how they were created. This catalogue thus offers three different ways to understand Eva Löfdahl's exhibition.

But how shall we understand the title,  $\pi$  and around? As often with Eva Löfdahl, we must be able to look simultaneously in different directions, listen carefully to the tone of her thinking and register the background radiation from her long and intensive work in the studio outside Stockholm. Most of us will remember from school that  $\pi$  is an irrational number from Euclidian geometry, expressing the relation between a circle's circumference and its diameter. It cannot be written as a fraction, only with an infinite number of decimals. Might Eva Löfdahl have been attracted by the unsolvable and unfulfilled quality that  $\pi$  possesses? Circular shapes appear in some of the exhibited works, especially in the new plaster mouldings of mushrooms with round, swaggering hats and an inexplicable second foot. Viewed from aside, these two-legged mushrooms look almost exactly like the 'lower-case p' of the Greek alphabet. But then perhaps Eva Löfdahl prefers us to focus on what is around such shapes, outside the sphere of objects, beyond the three-dimensional? The

title itself is suitably fuzzy, indicating that there is something to be noticed, but that we might miss it if we only look for what we can already see.

If we want immediate access to the centre of Eva Löfdahl's exhibition we should close our eyes already at the entrance and not open them until we have reached the rear hall, which quite often becomes the climax or focal point of the exhibition. How about this time? On each side of the hall, close to the entrances from the left and right galleries, there are some objects that are not easy to define in relation to the others. Are they full-blown works of art, additional spatial commentaries or a kind of intermezzo, something between exhibits and exhibition architecture? There are constructions of two types, both aptly named *Conjunctions*, but they are very different from one another and will guide us to different groups of works.

Conjunctions 1 from 1995 comprises three separate parts, each of them consisting of four bronze sticks forming a large-scale, primitive hook: three 'feet' comfortably joined together at 120 degrees and a 'leg' protruding at 90 degrees from the joint. Mathematical angles may not be something we as viewers fret about on a daily basis, but in the three-dimensional grammar that underpins Eva Löfdahl's exhibition they may sometimes have independent meaning. These conjunctions are more than semantically empty links to the 'proper' words that constitute the exhibition-as-text. They are cast from originals resembling manually dipped wax candles and retain some of the irregular and unpredictable roughness of the 'hand-made', although in this

case the hand just held the wick without shaping the surface. To create meaning, Eva Löfdahl often puts traces of the hand up against flights of intellectual fancy. We recall Nalimov's idea of the metaphor, the linguistic image that allows thinking to penetrate speech from time to time. The metaphorical is a great concern for Eva Löfdahl. These oversized implements introduce us to the plastically crafted works in the exhibition.

The palpable and evocative weirdness of the eight 'houses' in Untitled from 2009 is exceptional in Eva Löfdahl's art. It is true that her works may seem cryptic, and sure enough they are often crammed with encrypted meaning, but we do not expect them to be downright mystical. These greyish white abodes with their mute orifices for windows and doors double as faces with hollow eyes and yawning mouths. They are the most pronouncedly plastic works in the exhibition, positively moulded in plaster around blocks of styrofoam, and for precisely that reason they invite associations to archaeology and art history. I myself immediately remembered the outline drawings of houses in the Holy Land I was forced to fill in with crayons during religion classes in primary school. If we suppress our first impression of monotony, perhaps caused by the dry gypsum surface strewn with powdered pumice here and there, we notice that the houses have been individualised through constructive elements charged with self-contradictory meaning. How, for instance, shall we interpret the cylindrical finishing touch on one of the walls, a detail that brings to mind Biedermeier furniture from the 1830s? How did it end up here? Even if we try to neutralise the plaster houses by forcing them

into categories such as 'sculpted images' or 'mediumsized objects' we cannot fully subdue the arousal and anxiety they induce. We are seized with longing to fit ourselves into this image of a house, to inhabit it. We realise that it cannot possibly be a real dwelling. Yet it is as if a new and unknown Eva Löfdahl had moved in and was secretly observing us from inside the unevenly plastered hallways and living rooms.

Eva Löfdahl's exhibition challenges our acquired indifference towards three-dimensional forms and makes us aware of invisible and ominous presences around them. This is also very true of another new work. Park of the Lesser Idols from 2009 is a collection of small plaster objects sharing one podium. They are smoother, rounder, more 'illusory', more 'finished' than the houses, but this does not make them less remarkable. What exactly is being said in this well-articulated visual language? It is not difficult to grasp the shapes as distorted organisms: fingers perhaps, or gutted and stitchedup chicken carcasses. Gathering or 'parking' them together further aestheticises the distortions, which only increases the uncasiness they provoke in us. But perhaps we should not let Eva Löfdahl scare us with her free variations on the theme of organic form. The lesser idols may also be her way of teasing those of us who admired her sculptural work in the 1990s and still nurture expectations based on them.

 $3D \pi$ , the two-legged sculpted mushroom from 2009 that Eva Löfdahl elevates by giving it almost the same title as the whole exhibition, strikes an irreverent swinging note. The extra support is absurd, of course, and no explanation is offered for its presence, but we

feel nothing more disruptive than speculative confusion about the straightness and roundness of mushrooms and how these a priori characteristics have been re-engineered. This time we are not threatened by any of that mild panic that the idols and houses caused. Standing, also from 2009, is a similar version of the excessively stable mushroom.

Moulded plastic forms have appeared before in Eva Löfdahl's art, but usually in combinations with other materials that were cut and fashioned in entirely different ways. One example of the polysemantic visuality such works may produce is the sculpture Extructed from 2005, executed in concrete, aluminium and steel. It grew out of a visual impression from the upper floor of the Egyptian Museum in Cairo, where a large amount of smaller objects can be studied: models and miniatures that were once part of the burial kit for high-ranking officials. It might have been an image of the snake demon Apep, who tried to prevent Ra, the Sun God, from reaching the western horizon every morning. Anyway, the snake in the sculpture is split in two independent halves. Joined together with a steel screw, they seem to ride the wave-movements of an unknown ethereal medium while at the same time resting on an elegant aluminium fundament. One is shadowing the other, and perhaps this redoubled snake is both live creature and after-image of something dead; present inside the constructed image and a ghostly presence outside of it.

The presence and absence of life and spirit, extension and introversion, being both inside and outside, both open and closed, participating in and distancing

oneself from the communal; Eva Löfdahl's art expresses such oppositions in many different ways. They can be sensed in this exhibition as well. Compassion and Detachment from 1995 is one of the works she herself has called 'materialisations of societal phenomena'. We must not understand this as a direct transfer of social ideas or linguistic concepts to a three-dimensional visual format. They are rather an indication that Eva Löfdahl was striving, also during the pronouncedly sculptural period when she represented Sweden at the Venice Biennale, to interact with the world around her. She was cultivating a kind of 'figuration'. Four faceless aluminium heads are resting on little cork pillows, covered by a sheet of glass suspended from the ceiling. This can never be a direct illustration of the concepts featured in the title. Instead the work employs visual means of expression (the combined effect of the number of elements, their positions in relation to one another, materials used, the precise distances and angles in the installation) to stimulate dynamic thought processes in us as viewers. We must decide for ourselves whether we want to wrap these thoughts in words and, if so, whether we want to reconnect with the words suggested by the artist.

Untitled is another work from 1995 that could very well have received a more elaborate title and more responsibility for supporting a narrative. This never happened, but the contact between the lonely black leather glove filled with plaster and the three crooked and exaggeratedly long ceramic fingers (two images of a hand lacking some of the hand's most prominent properties) is still both unreal and self-evident, both uncanny and

consoling. A classic but rarely exhibited example of Eva Löfdahl's emblematic and metaphorical working methods.

Another work that must be mentioned together with the plastic images in the exhibition is Catch in Orbit from 2003. The objects strung onto four wall-mounted iron rings could be favourite stones or loaves of bread with much-enhanced fibre content. A catch to be displayed and protected, just as stated in the title. But these forms are actually moulded in concrete for the sole purpose of being circulated in exactly this way, as artificial found objects. It is the over-ambitious simulation of materiality that limits their inherent materiality and alienates them from themselves. They will never be confused with their hypothetical prototypes. Eva Löfdahl has started yet another provocative metaphorical game, in which our internal images and the images she allows us to see exchange meanings.

To continue our description of the exhibited works we must go back to where we started, to the conjunctions. In language they coordinate or subjugate clauses and are therefore of crucial logical importance. But Eva Löfdahl also seems to have in mind those lesser connecting words that may appear superfluous but are in fact necessary to denote a certain atmosphere or level of style.  $\pi$  and around has grown out of Eva Löfdahl's collation of concept (the thinking and the ideas that underpin the exhibition) against context (the works she has chosen to show, but also Lunds konsthall as a building). The rear hall is the intersection where they meet. We have already studied three of the three-dimensional

conjunctions, cast in bronze. There are another three. Conjunctions 2 from 2009 are composed of painted MDF board and synthetic net, of the kind used against birds. One such construction marks the transition to the corridor-like right gallery. Not everything can be allowed in, the black net in the white frame seems to be saying. Something must be kept out. At the same time this is a contextual wink to this particular exhibition space and its specific visuality. In the early 1950s the young architect Klas Anshelm was known mostly for a few successful factory buildings. He reused some industrial motifs in his design for Lunds konsthall: the generous top light, the whitewashed concrete, the black metal meshwork of the balustrades.

Ever since it was invented by the Cubists in the early 20th century, assemblage has been an important part of the methodological arsenal of visual art. This is a highly metaphorical working method, allowing meaning to be transferred from one object or material to another. Many of Eva Löfdahl's strongest pieces are based precisely on artificially induced encounters between particulars we would never have imagined together. The new constellations must be both light and weighty. They must be well motivated but not self-evident. The objects in the series Clouds to Be from 2005-09 rest on wall-mounted holders vaguely reminiscent of extended arms. We are looking at square bundles of blocks and sheets of stone, plaster and dry, silvery aluminium foam. A small cluster of metal drills in different thicknesses droops from each of them. We will find the occasional 'fake drill', a piece of knotted silver string wound around a smooth steel rod. These

are the measures Eva Löfdahl has taken to give her conglomerates qualities that signal 'rain cloud'. We witness how an image is created through the co-opting of tightness, hardness and lightness, but we cannot point to any actual likeness with the subject of the image.

Five-Fold Hurrah from 2009 is similarly composed from materials that Eva Löfdahl has consciously refrained from shaping into sculptural figures. The five sturdy and rather uncouth wooden sticks are not quite straight, but sprawling in slightly different directions. They have been stripped of their bark and polished off at the edges. Otherwise they are quite unprocessed. An artfully crafted steel construction holds the phallic five-fold together and anchors it to the wall. This whole thing looks almost like a parody of a Christmas chandelier. The directness the work radiates if we perceive it as object or form is a necessary counter-weight to the impenetrable incomprehensibility we are up against if we try to figure out its function or meaning. The title's euphoric overtone does not make it easier for us to determine Eva Löfdahl's intentions. With a light touch she forces disparate elements together. From unrelated materials (stone, wood, metal, language) she creates mechanisms driven by the irreconcilable opposition of simplicity and mystification.

Two smaller works in the exhibition articulate this proximity to the incomprehensible in a partly different way. They, too, have emerged from a meeting of things that do not obviously belong together. But Eva Löfdahl has allowed the intercourse of metal wire with cardboard and paper to go so far that these various materials merge into a pictorial whole. The materials are

no longer discrete components of a three-dimensional metaphor that generates its own semantic force and can never be fully controlled by the artist or the viewer. With its loops of metal wire flung into space from what looks like a loaf of rice paper, Untitled from 2000 becomes something rather demonstrational, a model of a very particular thought that may well contain some ground-breaking truth about the nature of the world. Waiting to Be Sent from 1999 is the result of a collaboration between Eva Löfdahl and Ebba Matz. The work alludes to the artist and mystic Hilma af Klint (1862-1944) by giving physical form to some of the messages she received from the spiritual world. These are rendered as irrepressibly coiling lengths of metal wire confined to a cardboard box. We have not yet discovered any method that would make it superfluous to compress statements from the spirits into our own three dimensions. Hilma af Klint and her contemporaries believed that coming generations would manage this, but the question is if we today have kept alive their confidence in the future.

Eva Löfdahl's latest substantial public artwork really deserves to be called a 'monument'. Although the term is seldom used nowadays, this is how the brief for the commission was formulated. The idea to crect a monument for something as optimistic and future-orientated as entrepreneurship came from a foundation, the Finnish Entrepreneurs' Sculpture Fund. Eva Löfdahl solved this task by creating a geometrical aluminium latticework, anchored to a block of black concrete reminiscent of lava. The monument was uncovered 2006 on a new square at Kamppi in the centre

of Helsinki. Eye from 2009 is a recreated segment from the 'cloud' of aluminium modules that envelops the square fundament in Helsinki. This time the material is polyamide. In the 1970s the British mathematician Roger Penrose discovered how two rhombus 'tiles' can be used to fill a surface with a pattern that is systemically ordered but lacks periodicity, i.e. has more and different dimensions than the well-known symmetry that for instance characterises crystals. It emerged that the mathematicians and architects of the medieval Islamic world had already used a similar modular system for their geometrically tiled façades. It also emerged that certain metal alloys, often containing aluminium, follow this nonperiodic and multidimensional geometry. They are strong and resilient but lack the ability to conduct heat.

The new materials, which were called quasicrystals, are nonperiodic objects. While the position of the atoms in a classic crystal can be described by the contents of one single cell, a full description of a quasicrystalline atomic structure is only possible if we define the position of every atom in the whole quasicrystal.<sup>3</sup>

The modules from the monument follow the same multidimensional symmetry as these quasicrystals. They create a swarm of latticed forms that appear to fold both 'inwards' and 'outwards', guiding us in and out of their own logic. We have no immediate overview of this logic, nor can we comprehend each detail in its complex totality, yet the nonperiodic compositional principle seems able to stimulate our open-ended and nuanced thinking. It is therefore a source of confidence.

Just like the exhibition  $\pi$  and around, one might add. I cannot refrain from bringing up Vasily Vasilyevich Nalimov one last time. Thirty years ago he wrote this:

In contemporary science, chance has turned from the expression of our ignorance into the expression of our knowledge. In terms of the so-called algorithmic theory of probability, a random sequence of symbols is a sequence which cannot be recorded by means of an algorithm in a form shorter than the sequence itself. In other words, such a sequence has maximum complexity – it cannot be transmitted through communication channels by a brief record. But the notion of maximum complexity ceased being synonymous with ignorance. This is the cardinal change in our Weltanschauung. It took our culture more than twenty centuries to achieve it.

Sometimes Eva Löfdahl achieves her goals without having to create her own forms or even juxtapose different materials and objects. Untitled (flag pole bulb National Bulb') from 1995 is one example of how she has recycled yet another of the revolutionary innovations in visual art from the years around 1910. Just as the assemblage inverted the meaning of plastic form, Marcel Duchamp's readymade undermined any habitual understanding of the work of art and how it differs from other objects and phenomena. The viewers' capacity for interpreting and seeing connections suddenly became as crucial to the work of art as the artists' ideas and their skillfull recasting of them into visible expression. Eva Löfdahl's flag pole bulb, purchased from a flag factory, is literally cut loose from the societal phenomena it should be materialising. It is shown alone and disconnected, in a context for which it was not created.

Only the product name 'National Bulb' gives us a hint of how it was originally meant to be used.

The first thing we encounter in the exhibition, in the front hall facing St Martin's Square, is a bulky but visually pared down installation: a wall of stacked white styrofoam blocks with sandpapered edges and two stirrups hanging in long black leather straps from the steeply sloping concrete ceiling. Ein Nichts zu überspringen (German for 'A Nothing to Jump over') is the continuation of a spatial intervention from 1998. At the time Eva Löfdahl was interested in creating forms to make hardly noticeable phenomena in society palpable. In the very first version the styrofoam wall was a paradoxically porous image of exclusion and impermeability, a device to keep viewers at a certain distance from the drawings that hung behind them on the walls of Galerie Nordenhake in Stockholm. In the second version, created for Kunstraum Düsseldorf later the same year, the wall had become a more substantial nothing, something we really should straddle to skip over the otherwise contentless exhibition space and emerge on the other side. The drawings were gone, but two stirrups had been added. They are retained in the third version which is now confronting us.

We must take the wall into account, both as unambiguous physical presence and as ambiguous image. It is in our way, but we cannot jump over it. It blocks our view, and its own materiality does not yield any meaning that could immediately guide us in our attempt at deciphering  $\pi$  and around. The stirrups, on the other hand, become a prelude to the exhibition trajectory that Eva Löfdahl has devised for us. She wants us to

see the exhibited works in a certain order. We shall be able to grasp them as a meaningful whole, a semantic field with strong cohesive power. At the same time the works have meanings of their own that are strong enough to contradict whatever the totality wants us to grasp. This is why I have tried to describe all individual works in this exciting and challenging exhibition, but I am well aware that this introduction does not allow me to go very far into all the nuanced meanings that Eva Löfdahl's art will be offering us.

## Anders Kreuger Exhibition Curator

Notes:

- V. V. Nalimov, Realms of the Unconscious: The Enchanted Frontier (Philadelphia: ISI Press, 1982, translated from the Russian by A. V. Yarkho), p 16
- V. V. Nalimov, In the Labyrinths of Language: A Mathematician's Journey (Philadelphia: ISI Press, 1981), p. 190
- Joanna Rose and Ivar Olovsson, 'Matematiken erövrar ytan' ('Mathematics Conquering the Surface') article in the journal Forskning och framsteg 'Research and Progress') # 5/2007 (my translation into English)
- V.V.Nalimov, Realms of the Unconscious: The Enchanted Frontier (Philadelphia: ISI Press, 1982, translated from the Russian by A.V.Yarkho), p 14