A Scopic Mode of World Production

Derivative money, technological capitalism and a recourse on artistic research

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Preliminary mote:
This text looks at aspects from the perspective of my research on finance and economy and their relation to art and society. Some of these aspects might at first seem slightly distant if not unrelated to the field of artistic research in general. But the technological equipment of financial traders, their space of action and how it re-defines the space of the political, the contended role of the subject in what I have termed "Econociety", the role of trend analysis and mathematical algorithms, the transfer of the notion of sovereignty to systemic negotiations of risk, and money as a relational body seem to me to converge in what I would like to call—in a paraphrasing Karin Knorr Cetina and Alex Preda's term "scopic mode of markets"—a scopic mode of world (production), to which the framework of the artist and of art has been contributing for quite a long time—as a field of critical practice as well as the paradigm of productive subjectivity.
Not only the current economic crisis (in which finance imploded into the wider economy and thus into societies) and the attempts of politics to control finance—as highlighted i.e. by the US president's current efforts to implement a regulative framework—, but a much deeper level of intervention and invasion into society make it a necessary task today to examine finance and especially derivatives from a wide array of perspectives and practices, and as I argue, this includes practice-based artistic research. To me, this involves thinking 'through' the answers finance and economisation provide us with in a fashion that could be compared to a laboratory of associative fermenting of their strategies, processes, and technologies with art as enzyme. Therefore, I include an example of an artistic research project at the end.
Due to the limited space, this text can only draw cursory lines and point to traces and concepts instead of following into stratums of (virtual) territories, architectures, and time. These will be included as well as developed in further practice based research work.

Daimonic angels

Men and women wanted for hazardous journey. Sweet'n sour, short seconds of complete darkness, constant danger. Safe returns doubtful, honor and recognition ambiguous. Large wages, even in case of ill success.[1]

This paraphrase of an advertisement Ernest H. Shackleton is said to have placed in English newspapers such as "The Times" to attract compatriots for an Antarctic mission at the dawn of the 20th century summarises in brief what the occupation of a trader of financial instruments might suggest to many people today. Risk, uncertainty, venture, ambition, even speculative recklessness and conflicting interests are on one side of the coin, on the other we find a global network in which space and time converge, 'hyperlinked' institutions are forged, and negotiations

[1] The introductory quote of Shackleton 's ad has never been proven. There is no actual evidence that it has ever appeared. It is possibly a myth itself and therefore, in line with the argumentation above, reflects on the 19th century idea of the individual as hero of a novel as opposed to the current daemonic individual incorporated in the corporate meta-individual as a derivative. The original text reads as follows: "Men wanted for hazardous journey. Small wages, bitter cold, long months of complete darkness, constant

on the micro levels of arbitrage as well as on the macro level of global transactions are undertaken in real-time. Following news reports of today, at stake here seem enormous sums of—mostly virtual—money that are poured into an algorithmic game to sustain the future welfare of big financial institutions and their clients as well as the luxury lifestyles and infamous bonuses of the people involved. An obvious disparity in the common entrepreneurial spirit opens between the romantic explorative spirit of a discoverer of Shackleton 's stature and the cybernetic romance in the craft of the heroes and heroines of information capitalism. Even to many of their advocates, what radiates from the "Masters of the Universe"—as Tom Wolfe called them in his 1987 novel *The Bonfire of the Vanities*—is not so much the apollonic, discovering light of an Age of Enlightenment. Rather, one might assume, it is absorbed and turned into a cruising „expertise in twilights", a daimonic auxiliary interface (in Thomas Feuerstein's reading of the greek *daemon* as a system of allocation and distribution[2]) to navigate though randomness.

Being exposed to an extreme natural environment for long stretches of time with sparse protective technical equipment or transportation means puts the stake of success and recognition on another level than being embedded in a technological envelop that facilitates navigation, execution and thus valuation in milliseconds. What both professions share, though, is a profound involvement of and a necessity to understand uncertainty and risk, and to create 'knowledge'. Both have a vital interest not only to survive in their respective areas but also to colonise them. Not only metaphorically do the lives, existences and the futures of many depend on the conflicting considerations, negotiations and decisions of these "venture-faring" individuals. By taking into account the function of the artist as another figure that creates worlds from rather untraced territories, we arrive at a threefold entity, a 'trinity' of scientific, economic and artistic endeavour. Subjects to specific environmental conditions, they not only discover in a completely different set of uncertainties but also highlight different sets of relations between individuals in-between their „worlds". Today, I argue, we face a revolution in the concept of the person and the self and therefore in the relations that create conflicts and negotiations.

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danker, safe return doubtful. Honor and recognition in case of success."

[2] Thomas Feuerstein, „The Tonic of Consumption: On Tricksters and Demons", in: Gerald Nestler, *Yx . fluid taxonomies—enlitened elevation—voided dimensions—human derivatives—vibrations in hyperreal econociety*, 2007, p.75

A scopic mode of world (production)

As early as 1975, Foucault in his lectures at the Collège de France stated, "Power passes through the individuals it has constituted".[3] The former conceptual divide between entities had lost its paradigmatic function. It became clear that we exist in networks and links formed by agency as well as dependency. From political science to consumer research, a seemingly endless amount of different approaches have been tried out to take advantage of this new paradigm, but also to emphasise the threat it poses to many. It is therefore of crucial importance for political lobbyists and economic entrepreneurs to produce knowledge as well as devise strategies to exert influence not only on the concept but on the actual bearers themselves. Here is where the largest profits and the widest influence can be gained, especially if the scheme runs unrecognized. This notion of an individual that is not only subject to but part of biopolitical power negotiations seems to become part of a wider scope of intrinsic power structures where the agency to negotiate conflicting observations and perceptions is situated.

Karin Knorr Cetina and Alex Preda in their article „The Temporalisation of Financial Markets: From Network to Flow"[4] argue in respect to the current global financial system and in a critical review of network theory (as exemplified by Manuel Castells) that „markets moved from a network-based architecture to one based on a scopic mode of coordination. In networks, the mechanism of coordination is relational and selective; ... A scopic mechanism, in contrast, works through collecting and ‚appresenting' things simultaneously to a large audience of observers." In such a 'world', information is present at all times and places. It is ever-present as a mode to be made use of ‚freely.' At the same time we are integrated in a net of satellites that scan our planet and package data into diversified information of safeguarded interests. Conflict and negotiation become immersed in an apparatus of a scopic view. On the one hand a micro-scopic visualisation of even minimal profit potentials, on the other hand a macro-scopic visualisation of procedures, processes and matters on earth—both addressing randomness and uncertainty.

To illustrate this point I would like to take a step back into the beginning of modernity and explicate this development with a specific example of European art that probably most people are familiar with and that might prove to be a helpful register of ideas from where we can draw

[3] Michel Foucault, *Society Must Be Defended*, translated by David Macey, New York, 2003, pp. 30
[4] Karin Knorr Cetina and Alex Preda, „The Temporalisation of Financial Markets: From Network to Flow", *Theory, Culture & Society*, 2007, Vol. 24(7-8): 116-138

links to the above-mentioned current mathematical-technological-economical apparatus. The work I would like to go back to is Leonardo da Vinci's famous drawing „The Vitruvian Man" (see p. 12) in which art, religion, philosophy, science and mathematics form a specific aesthetic unity that had a strong influence not only on art and architecture but also ranks as arguably the most famous emblem of a cosmic vision of man in Western art history. Vitruvius, who the work is dedicated to, was a Roman architect and engineer. In his treatise „De Architectura" he uses geometry to describe the ideal human proportions and their correlations and relates them to architecture. As quoted by Wikipedia, the „Encyclopaedia Britannica online states, 'Leonardo envisaged the great picture chart of the human body he had produced through his anatomical drawings and Vitruvian Man as a cosmografia del minor mondo (cosmography of the microcosm). He believed the workings of the human body to be an analogy for the workings of the universe'".[5] The work also highlights a relation to the golden ratio, another example of the blending of art and mathematics. First defined by Euclid it was later developed by Fibonacci in his treatise „Liber Abaci" (1202) into a numerical series, the Fibonacci sequence. The Franciscan friar Luca Pacioli in his „Divina Proportione" (1509) defines the golden ratio as the „divine proportion" because of its importance in the construction of the Platonic solids and thus to the Platonic idea of creation. In the same book he refers to the Vitruvian proportions of man as template for architecture and to Da Vinci's drawings. In this drawing and its mathematical-artistic idea of aesthetic harmony, man is embedded in the creation and the cosmos. At the same time, he is the subject as well as the image of higher order where God reigns sovereign. The idealised perfect proportions exist beyond a world of uncertainty. They do not inhabit the four relational dimensions of space and time as defined by Minowski space (developed ca. 1907 coincidentally at the same time when Shackleston went on a second expedition to the Antarctic) of 3 spatial dimensions and 1 timelike dimension (in which—in contrast to 3-dimensional Euclidean space—Einstein's theory of special relativity can be described).

I take this example not to refer to the art of the Renaissance itself and the specific register of a kind of ‚divine commensuration.' I would like to use it to look at what happens to the 2-dimensional image of a fixed hierarchical if not celestial order when we evert it into a notion of the 3 dimensions of space and the dimension of time (in relation to Agamben's shift of sovereignty from God to the people). Thus, to illustrate my argument, by projecting Leonardo's

[5] see: http://en.wikipedia.org/wiki/Vitruvian_Man

image into the space of our world today, the circle becomes the sphere of the earth and the square becomes the system of satellites. When we press the play button, so to say, by taking time in account as well, we arrive at the orbital movements of the planet and its ‚companions.' From the divine-mathematical-geometrical order of the golden ratio we find ourselves in the mathematical-algorithmic order of the current political-technological-economical framework (its military aspects are left out for now).

But what happens to man? (As there is not enough space to follow the developments from the former to the latter, I will concentrate on one aspect that interests me here, derivativisation). The political-economical-technological order obviously does not fix man into a stabilised-hierarchical framework. Man as a 4-dimensional being falls from the ‚grace' of being situated in the centre of a cosmic order, she multiplies into nodes of a network of relations in a now technological and communicational ubiquitous vision. The relational and fluid positions do not anymore refer to a subjective form of embeddedness into the world. This extension as the modern space of habitation unravels through competition as conflict and its different forms of negotiation that have taken on the role of the formerly defined proportions. The geometry of Euclid surrenders to Mirowski's and Einstein's, which is fundamentally relative, hazardous, and diverted by forces of attraction. It was Einstein who said that the presence of mass brings about the curvature of space. The cosmic void that unfolds after God's demise as the all-present opens to the arguably most intimate, familiar, powerful and activating feeling of modernity: exposure to the unknown, to uncertainty. With Peter Schneyder we can speak of the probabilistic humiliation ("probabilistische Kränkung") of the human being.[6]

Probabilities and their exegesis as i.e. trend analysis define the realm of an apparatus in which the kingdom of God turns into governmentality as described by Michel Foucault where politics are settled in trade-offs on terms of the power of neoliberal market schemes. To be able to deal with instability and uncertainty, frameworks have to be devised that allow approximation. A 'multiplied man' embedded in the 4-dimensional scopic mode substitutes the subject of hierarchical order; the subject when thrown into the 4-dimensional relational world that is tantamount to a sphere of conflict and negotiation based on attractions, distractions, and exchanges (a politics of exchange) becomes a network relation herself, a commodity relating to

[6] Peter Schnyder, *Alea. Zählen und Erzählen im Zeichen des Glücksspiels 1650-1850*, Göttingen, 2009

commodities—a thing accumulating not subjectivities but relationalities.

„The specialised life-world of flow markets is ‚metastable' in physicist's sense: it is stable only long enough to enable transactions to occur and changes with transactions",[7] write Knorr Cetina and Preda in their above-mentioned text, explaining the status of markets that work in a scopic view. This seems also to apply to the scopic mode of a ubiquitous view as delineated above. The flow of images, data, and algorithmic sequences is monitored as a flow from "in the next moment" to "a moment ago". It only becomes effective when a ‚transaction' happens, or in the terminology of quotations when an ‚ask' is matched with a ‚bid' and a deal is closed. This scheme works far beyond a normalised commercial field of action where due to uncertain and qualitative origins of the offers can result in catastrophic miscalculations of what a bid or an ask are. The recently revealed shooting of innocent people in Iraq when a US-army squadron misinterpreted the camera of a Reuters journalist as a weapon and killed a group of innocent people illustrates this[8]. Generating a ‚contract', a 'transaction' from unknown or uncertain 'bids' and 'asks'—the securitisation against a claim, so to say—(which could be understood as generating a metastable reality) is counteracted only by methods of high complexity of disclosure as regards not only the fields of military but politics and finance as well. The example shows how the forensics of a scopic mode of vision not only rely on the identification of a conflict and data mining but on relevant techniques of de-coding information.

Angels of transcendent emergency

At this point I would like to point to a relation to Agamben and briefly examine a metastable "state of emergency" that resides in the transition from one transaction to the next. Here, we encounter an extreme situation without place where Agamben's "camp" involves temporal, relational emergences: As regards the markets, even if a trader is located at a specific place the technological, computer-based and cybernetic enclosure links her to a transitive 'oracle' of which she is less the viewer than the 'seer', a prophet of presence. The immersive 'playground' of transactions might soon become a 3-d virtual computer space similar to multi-user computer games, where real-time market data will be constantly rendered visually in connection to historic market data. The spatial realm of the "state of emergency" would then turn into a purely time-based one in a flow of 'reversed nature': like snowflakes melt away when they touch a warmer

[7] Knorr Cetina and Preda, loc. cit., p.116

surface, trades emerge and reality is ‘manufactured’ when ‘molecular monads’ of bids and asks merge.

Even though researchers that examine decision-making that involve risk in real-life settings from chaos theoreticians like Benoit Mandelbrot[9] to behaviourist economists like Daniel Kahnemann and Amos Tversky[10] to randomness, risk and uncertainty researchers like Nassim Taleb[11] clearly state that there is no definite relation between former trends and current transaction and that statistics as well as forecasting are prone to error, a gigantic epistemic system of management of mathematical analyses and algorithmic practice has been set up to find traces that connect the past with the future to generate ‘sense’ in closing the gap of presence as it were, i.e. extrapolate risk from uncertainty to facilitate transactions with (positive) return. A temporal space of navigation is evolving that emulates the gravitational space and its attraction of bodies to a probabilistic real-time scenario of attracting transactions—the implementation of a new transcendence from the voids of a derelict immanence. In *Il Regno e la Gloria* (2007)[12], Agamben, in reference to Foucault’s concept of governmentality, writes that the passage of sovereignty from God to the people does not only call in the passage to modernity. As Claudio Minca writes, “For Agamben, this passage cancels, de facto, the mediating role of the Angel/bureaucrat—but nonetheless maintains the mechanism of governmentality that sustained it. It is at this breaking point that the void that characterises the modern oikonomia is produced, a void that must be concealed for it is the real *arcanum imperii* of modernity—that is, the affirmation of a paradigm that is no longer epistemic but simply `managerial', `bureaucratic’”.[13] Mankind has left the Vitruvian incorporation into divine order and has also decoupled from the rationale of the ‘invisible hand’. It is left—for the time being—with a kind of ‘visible hand’ that is the emergence of all data sets into a scopic visibility of updates, the phantoms of a control of probabilities, an angelic intelligence of bureaucratic transcendence invocated by traders (technical analysis holds that all relevant information is already reflected by prices).

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[8] see: http://www.collateralmurder.com
[9] see: Benoit Mandelbrot, *The (Mis)behavior of Markets: A Fractal View of Risk, Ruin, and Reward*, New York, 2004
[10] see: Daniel Kahnemann and Amos Tversky “Prospect Theory: An Analysis of Decision under Risk”, *Econometrica*, XLVII,1979
[11] see: Nassim Taleb, The Black Swan: The Impact of the Highly Improbable, 2007
[12] Giorgio Agamben, *IL Regno E LA Gloria*, 2007
[13] Claudio Minca, Guest Editorial, *Environment and Planning D: Society and Space* 2009, 27, pp. 179

As argued above, one aspect of this machine is its 4-dimensional scopic mode of vision that is not only computer-based but fully mediatised (and this is the form of media I am interested here) in the sense of „the replacement of embodied transaction and transmission capabilities by a set of technological and behaviourally enhancing components that, together, serve as a medium for the globally temporalised performance...“[14] This disembodied dematerialised system—here further expanding Knorr Cetina and Preda's argumentation on markets into a broader perspective—is „generated entirely in a symbolic space – the market world is informational.“ „This implies another change,“ they write further, „today markets are also knowledge systems. The technologies ... are means of articulation, exhibiting and ordering the properties of these markets. They enable and include epistemic functions.“[15] „All traders on the floors have a technological set at their disposal; ... their bodies and the screen world melting together in what appears to be a total immersion in the action in which they are taking part ... the systems involved are scoping rather than networking systems.“[16] This has crucial effects not only on the architecture of financial markets but, as my argumentation goes, to the temporal and spatial medium of the model I illustratingly derived from Leonardo's drawing—a scopic mode of world (production).

> „A scoping system ... can be defined as a system of observation and projection that assembles on one surface dispersed and diverse activities, interpretations and representations which in turn orient and constrain the response of an audience ... When such a mechanism is in place, coordination and activities respond to the projected reality to which participants become oriented. The system acts as a centering and mediating device through which things pass and from which they flow forward.[17]

Knorr Cetina and Preda apply this to markets. Following Maurizio Lazzarato, who insists that "…capitalism is not only a mode of production but a production of worlds"[18] I would like to try to grasp some of these aspects for an identification of the human being, the individual person in such as system. What becomes of the *cooperation between minds* (italics by the author) that Lazzarato has in mind when we look at it through the gaze of financial capitalism?

[14] Knorr Cetina and Preda, loc. cit., p. 117
[15] loc. cit.
[16] loc. cit., p.125
[17] loc. cit., p.126
[18] Maurizio Lazzarato "From Capital-Labour to Capital-Life", *ephemera. theory of the multitude*, Volume 4(3): 187, 2004

Relational monies

What Knorr Cetina and Preda describe is a production of a world, specifically the production of the world of money. What are mainly produced in this world are transactions of a specific set, financial derivatives. Not only do they serve to hedge or speculate risks (for neo-classical finance theory they are the discourse of risk management) but also—in line with Dick Bryan and Michael Rafferty—one can say that they themselves are a form of money proper. What advocates and opponents of the neoliberal market scheme have in common is that both see derivatives as tools to handle risks but with very different reasons: "Where Shiller sees the democracy of market votes, the radicals see the power of the rich. But, while the radicals frame essentially the same economic role of derivatives as the orthodoxy, albeit with antithetical conclusions, there is accordingly no sustained engagement with the idea of derivatives as money".[19] Katja Diefenbach, in her text *The Spectral Form of Value. Ghost-Things and Relations of Forces* for the multilingual webjournal "transversal" of eipcp - European Institute for Progressive Cultural Policies writes,

> "When Marx in respect to commodities regards social form as in fluid movement, Benjamin looks for the sign of a standstill of what is happening in the crystallised commodity, 'dialectic at standstill'". What a figure! In the dernier cri of yesterday, in the most recent crystal of commodity Benjamin finds the irredeemable of an epoch. In the commodity time stands still".[20]

But what if the commodity is—as the scopic mode of trading elicits—not comparable to a river, a solid mass flowing on or even less so resembles a crystalline structure? If as Maurizio Lazzarato expresses it "in societies of control money represents the colonisation of the power of virtuality by capitalists"? Bryan and Rafferty argue:

> "Those measures that counter uncertainty (i.e. derivatives) can therefore be seen as 'productive' insofar as, by their calibrations, they 'permit' the conceptual presumption of a stable monetary standard. Derivatives can be seen as commodity money because they embody commodified risk management within abstract money."[21]

To many, it might be rather unusual, to say the least, to talk about derivatives as being productive and a commodity. Bryan and Rafferty argue, "…by having characteristics of both

[19] Dick Bryan and Michael Rafferty, "Financial derivatives and the theory of money", *Economy and Society*, Volume 36 Number 1 February 2007, p. 137
[20] see: http://transform.eipcp.net/transversal/1106/diefenbach/en
[21] Dick Bryan and Michael Rafferty, loc. cit., p. 149

capital and money, derivatives break down that differentiation of money from 'real' economy."[22] "Their value is competitively determined, in terms of the relative valuation … of different underlying assets. … They are, in this sense, a universalizing force. This makes them distinctly capitalist money."[23] And further:

> "the blending capacity of derivatives makes the characteristics of particular monies transmutable and brings abstract money to life …as long as we do not see this transmutability as 'scientifically' determined, reflecting fundamental values (as might neo-classical economists), but as a performative process in which derivative traders use all sorts of information, perceptions and preconceptions to put a price on different forms of money (asset), we have a social theory within a structural process"[24]

that, referring back to Knorr Cetina and Preda, "with new features associated with the scopic mode of coordination account[s] for a paradigm shift in market architecture." A world that interlocks a scopic mode and in its centre capitalist money transcends out of its own respective world due to it being "self-transformable" as a "universalizing force". Further, derivatives are relations that do not require ownership but only "exposure to a particular … risk associated with that asset"[25] In that sense they are incorporeal events of the possible, the measure of risk and potential, a "daimonic" (Thomas Feuerstein) auxiliary programme. Its task is to put into practice a 'commensuration' of relations, a fluidity of momentary transactions that link the past to the future, the possible to the potential. If we superimpose this performative agenda onto the social-political field, a new regime of governmentality without a necessity to possess, to own, or to subject manifests. Constant adaptations to uncertainty, risk or instability have become part of the biography of people, their social climates. The capitalist mode of valuation has entered each aspect of life. Lazzarato reminds us "Gabriel Tarde … had already a century ago defined stock exchanges as laboratories of social psychology".[26] If this was the case one hundred years ago, to what extend must it be true today? "The power to act increases as society acquires new relational technologies as the machines of expression develop", says Lazzarato, and continues, "… money *is*, in the same way as language, the existence of the possible 'as such'".[27]

This leads to, I would like to argue, not only a derivativisation of financial and economic 'material'. As this money of monies corresponds to the power to "control and capture the

[22] loc.cit., p. 149
[23] loc. cit. 142
[24] loc. cit., p. 153
[25] loc. cit., p. 140
[26] Maurizzo Lazzarato, loc. cit., p. 195

organization of difference and repetition and its motor: the virtual"[28] it encloses every aspect of resource in its scope. But what is the actual, the vital resource, not alone in the society of knowledge but in a wider capitalist extension and colonisation? It is the individual and her potential subjectivities/relationalities. Lazzarato writes, "incorporeal transformations come before and faster than corporeal transformations. … Contemporary capitalism does not first arrive with factories, these follow, if they follow at all. It arrives with words, signs, and images. Today, these technologies do not only precede factories, but also the machine of war. […] The advertisement event is an encounter, even a double encounter: an encounter with the soul and another one with the body. […] Capitalism tries to control this bifurcation […] through continuous variation and modulation."[29] This is certainly true in a world of networks, a world that is split in developed and emerging countries. But beyond this, in the 4-dimensional scopic mode of world in which the "camp" of finance transcends its "state of emergency" into 'reality', there is a fusing of the body-mind split of colonial capitalism, which I call self-colonialism. Here, the fusion is set into action by the human derivatives themselves in their registering into the system of relations or rather the scope of metastable transactions as relations. The virtual is inscribed into the bodies by the minds themselves. In reversing or rather extending Mark Granovetter's theory of economy as a "socially embedded system"[30], I suggest an embeddedness of the individual in the financial/economic world production (even the seemingly excluded buyer of a subprime home has become an aggregate-product of the creation of derivative exchange value). The incorporeal incorporates the corporeal. The excluded are embedded as well (even if they have lost their homes in the meantime) as the 'blank collateral' on the maps of finance. In another comparison with Shackleton, the 'discovery' of this *Terra Incognita* has not been a success story. But we should not forget that these endeavours have always taken more than one try. The huge distance Shackleton had to literally cover in his ambition to reach the furthest point, the Southern pole, has been swapped with an algorithmic-mathematical approximation to colonise even the most exploited as the least 'collaterals of mankind'—to include them into the negotiation of the markets. The junk bonds of the 1980s that targeted companies have metamorphosed into speculative risk wagers not on waste real estate but on financially 'junk people' who before were not seen as solvent and worth of credit. This is the 'innovation'. It is these people that have been

[27] loc. cit., p. 196
[28] loc. cit., p. 196
[29] loc. cit., p. 190

detected as the individual frontiers 'where' a 'suprime' potential of acquisition and valuation has to be extended to. The wager is on their ability to answer the credits, the mortgages on their homes (even if probability is against them), to conquer, so to say, by economising themselves and thus to realise the sovereignty of the markets over politics. When I speak of a human derivative that is emerging whose subjectivity can be exploited as a resource (without paying the price for the underlying 'commodity'), she has to be part of the scopic mode of the markets and its production of worlds. Therefore, she must be opportunistically relational in the sense that she becomes embedded into the system of valuation herself as a form of money (and this applies to "luxurious subjectivity" as well as "rubbish subjectivity"[31]). In a reading that tries to capture this moment as a potential break-though to overcome the "probabilistic humiliation", Helmut Willke writes:

> "If we may understand the 'space of angels' as a metaphor for the celestial grid of communication satellites, it is downright eye-catching how intensely the virtual worlds of the new communication networks build up a world-spanning mirror, in which singularity, plurality and complexity of human knowledge enhance, reflect and therefore could guide the wealth of collective intelligence into a basically infinite recursion. The mirror antennas of satellite networks are now assuming what the eyes of the angels used to accomplish for the clear-sighted seers among men in myth. In potential, anyhow."[32] (transl. by G.N.)

Due to the lack of space I conclude by only mentioning Pierre Klossowski's treatise *La Monnaie vivante* (Paris, 1970), in which probably for the first time the body was scrutinised as currency—at the same time when technological capitalism as a cybernetic, self-regulating scheme of world production began its ascent to become ubiquitous and scopic. What has become of the human being and her body in these thirty years? And what can we develop against a scopic mode of world production in which financial instruments become the underlying of human relations, especially when we think from the laboratory of practice based artistic research? Is a "collective intelligence" of which Willke writes (or as I'd prefer to call it a relational intelligence) a feasible option? And if man becomes a kind of relational money, will we succeed in multiplying and

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[30] Mark Granovetter, "Economic Action and Social Structure: the Problem of Embeddedness", *American Journal of Sociology*, 91, 1985, p. 481-93

[31] terms from M. Lazzarato, loc. cit. p. 190

[32] Helmut Willke, *Atopia*, Frankfurt, 2001, p. 85. The original quote reads as follows: "Wenn der 'Raum der Engel' hier als Metapher für die Himmelsnetze der Kommunikationssatelliten verstanden werden darf, dann springt geradezu ins Auge, wie intensiv die virtuellen Welten der neuen Kommunikationsnetze einen erdumspannenden Spiegel aufspannen, in dem die Singularität, die Pluralität und die Differenziertheit des menschlichen Wissens den Reichtum der kollektiven Intelligenz steigern, zurückspiegeln und so in eine prinzipiell unendliche Rekursion führen können. Was im Mythos die Augen der Engel als Spiegel für die

owning these currencies as the actual and highly differentiated underlying entities ourselves that we create, adapt or even withdraw? These questions need further elaboration and research that go beyond the scope of this essay. To finish, I would like to conclude with a description of the research in a recent art project that relates to the above-mentioned ideas.

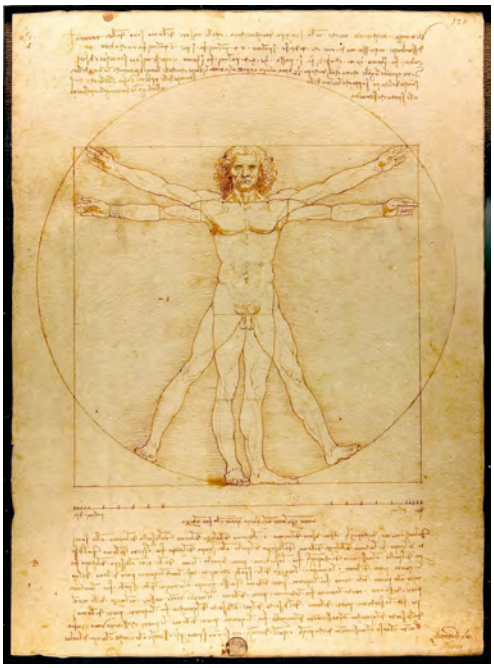

Fig: Leonardo da Vinci, Vitruvian Man, Galleria dell' Accademia, Venice (1485-90)

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hellsichtigen Seher unter den Menschen leisten, übernehmen nun die Spiegelantennen der Satellitennetze. Jedenfalls als Möglichkeit."

Some further remarks on practice-based research with reference to the art project *The Trend Is Your Friend! a performative and interactive artistic experiment* by Sylvia Eckermann and Gerald Nestler (credits below), which pursues some of the questions elaborated in the essay above:

Under laboratory conditions at the MedienKunstLabor at the Kunsthaus Graz, *The Trend Is Your Friend!* challenged notions of individuality and community. It raises questions that go beyond the tangible artistic array of (symbolic) values:
To what extent do trends influence us as individual and subsequently as social beings?
To what extend do we become part of an economization that promises profits and wealth and at the same time develops standards for our behaviour and inclusion?
To what extend do individuals, who oppose trends and deviate from standard norms become socially marginalised and the actual losers in the game?
In the knowledge-based society that is emerging today, in which mathematical algorithms and probability theory are put into practise to squeeze profits from the very resource — the individual agents — we might ask if not the eponymous "friend" embodies an updated version of George Orwell's infamous "Big Brother"?
Are we witnessing the fashioning of another control system — a subtle, shiny and complex surface that creates a new breed of derivative uniformity and denies us our very own unknown futures?
Or, does a "human derivativisation" hold a potential for trans-humanist agency in-between "circulation, transformation and valuation"[33], as a new "re-public" where "individual things" entrust values not through representation but a more concrete yet contingent "touch"?

An artwork that deals with the relevance of trends and markets in contemporary culture not only conceptually considers research questions of different fields but also in its practice. It takes a transdisciplinary approach to combine diverse knowledge systems into one experimental setup. Aspects from fields as far as economics, finance, game theory, mathematics, and stochastics; programming, robotics, computer graphics and visualisation; cultural theory and art theory, digital art and sound art, all converge to realise *The Trend Is Your Friend! (TIYF!)*
The project is not only an attempt to artistically visualise trends, it also allows visitors to actually participate in the game. This is necessary if we want to understand what happens to us when we trade, when we win or loose, catch a trend or stay out. What are our own value preferences and how much are they in sync with all the other players? The objects we consider are things in a broader sense. We don't use (virtual) consumer goods, or luxury items as commodities; the objects we are interested in are the representations and classifications of what we consider of value, and how we communicate to find "solutions". We enter a site that might resemble Bruno Latour's "parliament of things", in which humans and things interact by negotiating with each other on scenarios that relate to value production inside a technological infrastructure. Scott Lash reads and quotes Latour: "'the human', Latour continues, 'is in the delegation itself, in the pass, in the sending, in the continuous exchange of forms.' 'Human nature is the set of its delegates and representatives, its figures and its messengers.'" The performative architecture of *TIYF!* allows for such a passing of our judgement, the weaving of a net of messages that result in actions. Human agency is not singular but is itself a network of actions that develop further due to 'majority decisions'. Culture is not purely representative. Lash follows that "contemporary culture is thus a culture of movement. A culture of moving (quasi-) objects" and thus, again in the words of Latour himself, "'we become engaged in 'object tracking'".[34]

TIYF! is a techno-social machine in which tracking is made accessible to participation as well as observation. It is what art is to culture, so to speak. But in such a culture, art is of another kind than a purely representative one. It could be argued that as a practice that invents methods and highlights tracking activities it is far more related to research. This is where art is seems most promising today, I believe. The freedom to meet the unknown, the unrecognized, and return with perceptions, possibilities,

[33] Koray Caliskan and Michel Callon, "Economisation, part 1: shifting attention from the economy towards processes of economization", in: *Economy and Society*, Vol. 38/3, August 2009, p. 389

[34] See: http://translate.eipcp.net/transversal/0107/lash/en#redir

chances, propositions, or even hypothesis is the spirit of the laboratory. Within the artistic realm, the enclosed space of science becomes an open participatory lab. Regarding the critique that art cannot be compared to science because it does not know objective methods for knowledge production, reference might be made to Sarat Maharaj's reasoning in his text *Know-how and No-How: stopgap notes on "method" in visual art as knowledge production*: "What we lump together as 'science' is often a congeries of quite divergent activities, disciplines and domains, each with its own kit of objectives and logical procedures. We should be wary of treating them as if they added up to a monstrous monolith. In any event, many scientists themselves remain more than a pinch circumspect of philosophical attempts to sum up their activities with a single overarching methodological principle. We might do better to keep matters open, perhaps with a feel for the hodgepodge of methods, even muddle, that attends the lab workbench".[35] There are no fixed, "„axiomatic"" methods but rather fluctuating systems. The artwork's allure as a time-based laboratory seems to be exactly in the inventive and experimental use of methods and its participatory approach. Restrictions are not drawn in the same narrow lines as in classical scientific operations. It shares more of Paul Feyerabend's rejection of method as a universal procedure, and his postulation of a methodological "anything goes" in knowledge development. If we visualise the practice-based lab as a place of fermentation with art as the enzymes, we state that artistic research counteracts, comes in from all sides, goes out at any place… and thus picks up traces that might at first seem unrelated but contain the potential of difference, invention, connotations, and variety. Art's capacity is exactly in the immersive consequence of artistic experience, its materialisation and corporeality, its being based in the participatory. When science and art as generic terms are distinguished as cultures of knowing and experiencing respectively, it needs to be said that they necessitate each other: We cannot know without experiencing and our experiences demand knowledge if we want to learn from them.
In a world in which creativity, aesthetics, information, messaging, and flows lead the way; where expert systems and lay knowledge are becoming intrinsically intertwined, art features as an open and accessible field for performative, interactive examination and understanding—as a transdisciplinary laboratory. Knowledge production itself is changing today and artistic "tracking competence" in Latour's sense might prove prolific in this respect. *The Trend Is Your Friend!* is an experiment in this sense of a renewed laboratory idea where the public enters the discourse and participates in the experimental attempt forged out of the mutual efforts of minds from art, technology, theory, science. An enzymatic art.

[35] See: www.artandresearch.org.uk/v2n2/pdfs/maharaj.pdf

THE TREND IS YOUR FRIEND!

A performative and interactive artistic experiment

2009, MedienKunstLabor | Kunsthaus Graz

In cooperation with steirischer herbst 09

Credits:

Idea, Concept, Artwork: Sylvia Eckermann
Concept, Artistic Research, Text: Gerald Nestler
Sound architecture: Peter Szely

System architecture: Winfried Ritsch
Pd/Game programming: Marius Schebella
GEM Render Library Programming: Johannes Zmölnig
Robotics: Florian Krebs
Display Environment/ Team TU Graz: Markus Murschitz/ Christian Pirchheim/ Univ. Prof. Dieter Schmalstieg/ Manuela Waldner
Architecture: Andreas Baumgartner/ Christina Romirer
Arch. Assistant: Florian Stöffelmayr
Additional 3D-Animation: Josef Wienerroither
Insects animation: Fatih Aydogdu
Camera: Hans Kraxner/ Cosimo Hnilicka
Photo and video documentation: Martin Krusche
Market model: Wolfgang Höchtl

Participants:
Ndombi Kande/ Ammed Omar Osman
Alois Bernsteiner/ Amelie Bernsteiner/ Anita Bernsteiner/ Jon Eckermann/ Gerald Fischer-Bernsteiner/ Fanny Haider/ Anna K. Hofbauer/ Barbara Imhof/ Oliver Irschitz/ Regina Leibetseder-Löw/ Renate Schwabl
Noemie Ballof/ Ursula Endlicher/ Robert Fink/ Hanna Resch/ Axel Stockburger
Christoph Gsottbauer/ Michael Kuhn/ Vesna Tusek

Production MedienKunstLabor: Winfried Ritsch
Curated by: Mirjana Peitler

More info, including images, videos and catalogue:

http://syl-eckermann.net/TIYF/index.html

http://www.geraldnestler.net/tiyf.htm