Special theme section: Eisenstein, Bogdanov, and the organization of culture

Towards a Tektology of Tektology

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This essay explores the diffractive relationship between Aleksandr Bogdanov and Otto Neurath. Using a diffractive methodology derived from Karen Barad, these two thinkers are brought into relationship through their impact upon the German Figurative Constructivists, a political-art movement which emerged from the Council Communist current grouped around the Berlin review *Die Aktion*. This yields a contextualization of both Bogdanov and Neurath within the political environment that arose within Social Democracy in the first third of the twentieth century. This interpretation provides a basis for how tektological approaches can be implemented in the age of digitized information.

"For an international hypertext system to be worthwhile, of course, many people would have to post information. The physicist would not find much on quarks, nor the art student on Van Gogh, if many people and organizations did not make their information available in the first place." (Berners-Lee 1999: 41)

Introduction

This is a conjugative-diffractive response to Ken Wark's *Molecular Red: Theory for the Anthropocene* (Wark 2015), which I foresee playing a significant role in drawing attention to the work of Bogdanov. This book seeks to elaborate a revival of Marxism, through Bogdanov, as we enter a period when the impact of human activity is the dominant force in reshaping the very geology of planet earth. Wark places Bogdanov in the context of contemporary Californian feminist theorists Donna Haraway and Karen Barad. He mobilizes Barad's scientific methodology – rooted in the philosophy-physics of Niels Bohr (Barad 2007) – and Haraway's *Cyborg Manifesto* (Haraway 1983). This all works very well, for reasons, which will emerge below. Unfortunately Wark has gone seriously astray when he is completely dismissive of the "logical positivists of the Vienna Circle" (Wark 2015: 126). Wark appears to be misled by what Thomas Uebel (1991: 4) has called the "received view" of logical positivism.

However, this led me to the use of tektology *as a method*, in exploring the relationship between Bogdanov and Otto Neurath both of whom endeavoured to synthesize Marxism and Machism. [For a discussion of Bogdanov in relation to Ernst Mach and positivist scientific methodology, see "From Empiriomonism to Tektology" (Sadovsky 1998)]. This response does not only open up a "second slit" by

considering Neurath but also brings into focus Franz Seiwert, the leading figure amongst the Figurative Constructivists. We shall also look at the subsequent development of similar ideas by the *Situationniste Internationale* (Carstern Juhl 1973). An intrinsic part of this process is disrupting the separation of “art studies” and “science studies”. A full analysis of the relationship between the thought of Seiwert and Bogdanov lies outside the scope of this short essay. However this methodological approach will lead to some suggestions as to how future research in this area might be conducted.

Conjugation-Diffraction

“[T]wo conjugating complexes (...) are in the process of ‘interaction,’ their elements-activities merge, ‘influence’ each other, in general, ‘combine,’ pass from one complex to another” (Bogdanov 1996: 112–3)

Karen Barad developed her methodology from Bohr’s Philosophy-Physics. Her agential realism challenges the representationalist focus on the correspondence of description to reality, and then promotes a post-humanist performative approach which concentrates on practice, doings and action (Barad 2007). She adapts Donna Haraway’s notion of *diffraction*, which is in fact precisely the image that Bogdanov uses as an example of “conjugation” (Bogdanov 1996: 113-4). Haraway describes diffraction as a metaphor (Haraway 1997: 16), which is perhaps another way of saying that the writer appreciates language as a dynamic system. This was certainly how Bogdanov saw things. He theorized a *basic metaphor* whereby there is a transfer of meaning: “Natural actions were described using the same words as those for human ones” (Bogdanov 1996: 16). Indeed this was key to his understanding of poetry as originating in spontaneous utterances which helped organize the work process and were the embryos of words: “they were natural and intelligible indications of those actions during which they sprang up” (Bogdanov 1923: 277). Thus Bogdanov’s use of *conjugation*, a word he appropriates from biology, and Haraway’s and Barad’s use of the term *diffraction*, appropriated from optics, are metaphors and examples of themselves, in that in all three instances they are used to develop language as a living system by stretching meaning from one set of circumstances to another set of circumstances. In time, if widely adopted, these words acquire the secondary meaning, which loses its characteristic as metaphor and becomes stabilized as bearing this new meaning, particularly when the original meaning becomes obsolete.

But let us take another pass on this. Barad is re-appropriating Haraway’s metaphorical use of diffraction as a particle physicist now engaged in Feminist Studies, Philosophy and the History of Consciousness. She embraces Niels Bohr’s rejection of classical physics, Cartesian dualism and atomistic metaphysics. Arguing that Bohr’s epistemology is not based on “independent objects with inherent boundaries and properties but rather *phenomena*” she develops agential realism according to which “phenomena are the ontological inseparability of agentially intra-acting ‘components’” (Barad 2003: 815). She argues that the boundaries and properties of these components are not predetermined but emergent through an “agential cut” occurring within the phenomenon. She eschews a simple understanding of apparatuses as laboratory setups, but rather as open ended material-discursive practices. They are not static structures but dynamic re-configurings of the world (Barad 2007: 146). We shall now open the second slit of conjugated “Machist-Marxism”, and discuss Otto Neurath’s collaborative role with Bohr in his development of complementarity.

Ingression

"If two things lacking common elements are being joined together, their structures must be altered so that common elements appear. (...) In such situations the method of ingression is commonly used, that is the method of 'introduced' or 'intermediate' complexes." (Bogdanov 1996: 128–9)

Just as Bogdanov describes how philologists uncover the genetic relationships between words (Bogdanov 1996: 162), through following a chain of mutually related words, we shall now use a similar process to uncover a genetic link connecting Bogdanov to Bohr through a shared backstory in the conjugation of Marx and Mach. For this first iteration, the key person is Otto Neurath (1882–1945) who grew up in Viennese academic circles. He was active in the Vienna Circle from the beginning: he joined Philipp Frank and Hans Hahn in the First Vienna Circle (1907–1910).

Prior to the First World War Neurath had started researching the economic impact of warfare and during the First World War he obtained a pivotal position spending half his time with the Austro-Hungarian War office and the other half collating statistics of the German Empire at a war economy museum in Leipzig. This experience fuelled his interest in an economy in kind, and when the revolutions spread across the Central Powers as mutinies and strikes brought the war to an end, he became a paid official running the economic administration of the short lived Bavarian Soviet Republic in 1919. For this he was put on trial for High Treason. Although his friends in the Austrian Social Democratic Party secured his early release, it meant that he was now barred from pursuing the academic career for which he had seemed destined (Cartwright, Cat, Fleck, and Uebel 1996).

He returned to Vienna and became active in the squatting movement, which arose as masses of Austrians took to the land to grow food in the face of widespread starvation. As the situation normalized he first created a museum for this squatting movement, and then, with the support of the Social Democratic Viennese municipal authorities, he started the *Gesellschafts- und Wirtschafts-museum* (GeWiMu) – a socio-economic museum which aimed to make social statistics intelligible to the whole population, regardless of their level of literacy. This led him to increasingly consider how information could be handled graphically (Vossoughian 2008). Another of his achievements was to be a key organizer of the Vienna Circle, which had as its goal the unification of science (Neurath 1973a), something also advocated by Bogdanov (Bogdanov 1918; 2016). He did this in the context of developing an approach to sociology that was, like that of Bogdanov, rooted in Marxism and Machism, and which he called Logical Empiricism. This is best illustrated in his major theoretical work on sociology, *Empirical Sociology* (Neurath 1973b).

The Vienna Circle was active in organizing a series of International Congresses for the Unity of Science. The second of these was held in Copenhagen in Neils Bohr's residence in June 1936. Indeed, it was here that Bohr delivered one of the key papers in which he develops his concept of complementarity: "Causality and Complementarity" (Bohr 1937). Bohr was an important advocate of the Unity of Science, serving on the ongoing advisory committee for the congresses and contributing to the first volume of the *International Encyclopedia of Unified Science* that Neurath was organizing (Bohr 1938). Edward McKinnon has argued that the Unity of Science was of central importance to Bohr, and that his innovation of complementarity is evidence of this: it allows for both particle and wave theory to coexist in a unified way, rather than creating a contradiction which must be resolved in one way or another (McKinnon 1980). It is the apparatus which plays an active part in the conduct of the experiment. Jan Faye has further argued from an examination of the correspondence between Neurath and Bohr, that Neurath played a significant role in supporting Bohr in the creation of his philosophy-physics from a Logical Empiricist perspective (Faye 2008).

Thus, this ingression has revealed the intermediate complex of Neurath, which allows the conjugation. However, further conjugation will not be possible until we have manoeuvred around a case of disingression.

Disingression

"It is really quite opposite to ingression. During ingression activities which were not connected earlier join together forming a "linkage" of conjugating complexes. During disingression they mutually paralyze one another which results in the formation of a "boundary", that is separateness." (Bogdanov 1996: 201)

Neurath makes scant reference to Bogdanov. The one reference in *Empirical Sociology* (Neurath 1973b) is unsympathetic:

"The scientific tool is not as unambiguous as one often assumes. If, without immediate necessity somebody introduces new formulations which can ease a coalition with former opponents, then an experienced and sharp-sighted politician may sense that with such philosophical change a political change is being prepared. Lenin's fierce attack on the philosophy of Bogdanov (of 1906)¹ may be explained from Lenin's basic political attitude, which made him ward off any idealistic deviations" (Neurath 1973b: 386).

It would appear from this that Neurath had not actually studied Bogdanov's philosophy. He seems all too ready to accept Lenin's critique in *Materialism and Empirio-Criticism* (Lenin 1909) and does not discuss exactly what "coalition with former opponents" he was suggesting. Neurath's view may well have arisen consequent to the publication of the German translation of *Materializm i Empiriokrititsizm* (Lenin 1927), four years before *Empirical Sociology*.

Despite exhibiting a certain resonance with Bogdanov's Tektology in his approach, Neurath never seriously discussed Bogdanov's work. This occurred despite several key works by Bogdanov being made available in German throughout the 1920s (Biggart, Gloveli, Yassour 1998). But Neurath did not engage with Bogdanov's theses. Leaving this mystery aside we must recognize "the formation of a boundary, that is separateness" – i.e. Disingression. Before investigating this disjuncture we need to step back for a more tektological view of the situation.

Tektology as Form and Content

"[F]orm and content are one" (Franz Seiwert 2015)

The revival of interest in tektology needs to be more than nostalgic: it can offer a methodology. As Bogdanov wrote in 1912 "from its very beginning, tektology is able to go beyond the field of abstract cognition and assume an active role in life" (Bogdanov 1996: i). Thus a purely abstract representation of tektology is oxymoronic. Bogdanov argued that tektology was not something new but rather a "necessary continuation of what is and has been done by people in their theory and practice" (Bogdanov 1996: i). Writing nine years later in the Preface of 19 November 1921 to the Second Edition of *Tektology* (Bogdanov 1996: iii–iv) – before the consolidation of Bolshevik power and Lenin's campaign against him had yet to put an end to the independence of Proletkult – Bogdanov's tone was very positive, speaking of a growing number of scientists becoming engaged in tektology: no doubt he was referring to Proletkult and more specifically the Socialist Academy, as the Communist Academy was originally called.

In "Proletarian University", published in 1918, Bogdanov sketches out the structure of this institution (Bogdanov 1977). Here there are three stages: after a preparatory and foundational cycle, the final stage for students is a specialist's cycle, which however includes a course on General Organizational

¹ This is the reference supplied by Neurath. This probably refers to *Empiriomonizm* the third volume of which appeared in 1906 (Biggart, Gloveli, Yassour 1998: 151).

Science (i.e., Tektology) common to all faculties. This scientific enterprise will be carried out in a collective and collaborative manner. This is necessitated by the disparate nature of bourgeois science.

From Science Studies to Art Studies

"Science is split into an ever larger number of branches, increasingly divergent, always weakening the living relationship that existed between them. (...) It is further necessary to do everything possible to eliminate the disparate nature of science that has led to the increase of specialization; the unity of scientific language must be the objective, matching and generalizing the methods of the various branches of knowledge, not only in relation to each other, but as regards the methods of all other areas of practice, developing of a complete monism of them all." (Bogdanov 1918; 2016)

Our next application of Tektology as a method involves jumping from "science studies" to "art studies". Geographically our area of focus will be Germany. Firstly, we need to consider that German science was above all bourgeois science – i.e. it was politically constructed as can be evinced by the problems Hans Reichenbach encountered when getting tenure as a Professor of Mathematics in Berlin. His political activism with his brother Bernard Reichenbach and their friend Alexander Schwab (*Biographische Datenbanken* 2008) led to opposition to his appointment, which was only overcome when Albert Einstein intervened on his behalf. Unlike in the Netherlands where the astronomer, Anton Pannekoek could combine an academic career with his political activism as a Left Communist, this was impossible in Germany. Hans Reichenbach had to give up his overt political activism, which then enabled him to establish the Berlin Circle as a parallel organization to Neurath's Vienna Circle, the two organizations proceeding to play a dynamic role in the development of mathematics and also of the Unity of Science Movement.

Meanwhile Bernard Reichenbach and Schwab became active in the Communist Workers' Party of Germany (KAPD), a Left Communist organization which broke away from the Communist Party of Germany (KPD) in 1920. Bernard Reichenbach even briefly served on the Executive Committee of the Communist International (1920–21) before the KAPD was expelled from the Third International. Sabatier (1974) found no trace of Proletkult-type institutions in Germany, and Biggart disputes her suggestion that "the cultural policy of the KAPD was closer to that of the Proletkult than was that of the KPD", on the grounds that, by her own account, the KAPD advocated only the assimilation of bourgeois culture" (Biggart 1989: Chapter 20, Note 6). However, we need to take account of the role of the political faction grouped around Franz Pfemfert which started as an underground organization, the Anti-national Socialist Party in 1915, which became public following the German Revolution of November 1918 and subsequently moved through the Spartakus League, the KPD and the KAPD, before re-constituting itself as the *Allgemeine Arbeiter Union – Einheitsorganisation* (AAUE) i.e. General Workers Union – Unitary Organization. One important feature of this current is that it drew in a range of significant artists, it discussed education and questions of art, poetry and aesthetics, rejecting the need for a political party (one of Lenin's critiques of Bogdanov) and published Bogdanov and Lunacharskiy amongst discussions of Proletkult and Proletarian culture more generally.

We shall now focus on Franz Seiwert, a major figure in this current, a leading figure in the Figurative Constructivist movement and an active collaborator with Otto Neurath following 1928 until Seiwert's death in 1933.

Franz Seiwert and the “Aufbau der Proletarischen Kultur”

“The Spectacle becomes dance” (Seiwert 1920b)

Seiwert was simultaneously active as an artist and as a political militant. His first appearance in the radical art journal, *Die Aktion*, was a woodcut in September 1917. This was followed by four others in the period leading to the German Revolution of November 1918. Whether he was involved in the Antinational Socialist Party, which had been founded by Franz Pfemfert in 1915 prior to the revolution is unclear, but he became a prominent member in the days following the revolution and was involved in organizing an Artists’ Council in Cologne (Crockett 1999, 77). Here I shall focus on his more critical articles, which emerged in *Die Aktion* following their increasingly negative stance as regards the Bolsheviks, particularly after Otto Rühle’s trip to Moscow in 1920. On his return Rühle reported the situation he found in Russia as differing from what he expected a socialist society to be like (Rühle n.d.).

Seiwert took an active part in the discussions as regards the relationship between culture and revolution. Seiwert had participated in the Ruhr Uprising (17 March – 8 April 1920). He had written a bitter polemic attacking the role of the political parties, particularly in relation to the political divisions, which led to suppression of the Red Army of the Ruhr with over 1,000 dead (Seiwert 1920a). Here he had called on workers to remember the goal of social revolution. In the “Aufbau der Proletarischen Kultur” (Seiwert 1920b), he set out to spell out exactly what he saw that goal as meaning, what his comrades had fought and died for. Here we shall focus on the role he saw for Art through a few extracts:

“The progressive realization of the communist idea is synonymous with the destruction of the modern concept of art. The true artistic creation and the realization of communism come from the same source.” (Seiwert 1920b: 723)

“In communist society there are no professional artists. The word artist is an insult and a human debasement. When the Spirit moves you then you will create works of art.” (Seiwert 1920b:)

“The spectacle becomes dance” (Seiwert 1920b: 723).

“The Artworks will be on the street. The streets are so bleak. Here completely new possibilities arise. The houses can be painted, whole streets can be painted. Useless advertising hoardings can become pictographs and sculptures.” (Seiwert 1920b: 724)

“The artwork, artistic creation is open. Everyone has the right to every work. There is no ownership of art works.” (Seiwert 1920b: 724)

“Engineers are artists, artists will be engineers. All workers will be artists, because art is no longer what is nicely done, but everything that is truthful.” (Seiwert 1920b: 724)

Seiwert wrote this in the heat of the failed Council (*Räte*) Revolution in Germany. In July 1921 his “Open Letter to Comrade Bogdanov” (Seiwert 2015) was published. (The use of the term “comrade” was at odds with the abusive terms used by Lenin to characterize Bogdanov.) Here Seiwert says he agrees with Bogdanov “in essence” but criticizes Bogdanov’s monism as not going far enough: form and content are one.

“Comrade Bogdanov! For me, it is increasingly clear that the proletarian society generally will not know these parts into which bourgeois culture is disintegrating: science, art, and again, their constituent parts: poetry, music, painting and so on. Form and content will not be known, but only work created from the true collective consciousness in which everyone becomes a creator, in which everyone is a creator.” (Seiwert 2015)

From Figurative Constructivism to Triolectics

"Artistic research is identical to 'human science'" (Asger Jorn 2011b)

Seiwert's views continued to develop despite the failure of Communist World Revolution following the First World War. With his comrades in the AAUE, he shared the view that the Soviet Union was nothing but a development within capitalism. Indeed Rühle's went so far as to draw a parallel between Bolshevism and General Ludendorff's "war socialism" (Rühle n.d.), a position similar to that of Bogdanov (Tompsett 2014). By 1927, Seiwert no longer spoke of proletarian culture in a positive manner. The culture of the future socialist society would not exist in embryo under capitalism: he rejected all attempts to pretend so, as this would contaminate the revolutionary struggle. But in the future society art and culture would be close to the mechanics and technology of work: "Bogdanov called this the science of the organization of human labor. If we understand work correctly as the preservation of life of both the individual and of the totality, then art is nothing more than an emergent work-image (*werk-, bildgewordene*) organization of labour, of life." (Seiwert 1978: 39)

Notwithstanding his critique of constructivism (Seiwert 1978), Seiwert supported El Lisitskiy when he came to Cologne for the International *Pressa* exhibition in 1928. The Soviet pavilion here did much to establish Lisitskiy's reputation in Western Europe. Augustin Tschinkel, a Czech contributor to *Die Aktion* also attended. It was here that the negotiations were concluded which gave both Tschinkel and Seiwert's long-time friend and collaborator, Gerd Arntz, steady work with employment at the (GeWiMu) that Otto Neurath ran in Vienna. Another associate, Peter Alma was also employed. Arntz and Tschinkel were regular contributors to *A bis Z*, a journal Seiwert edited between October 1929 and February 1933. But there was a tension between their paid work and their politics: "The working of the [GeWiMu] fitted quite definitely into my political vision. It was above all the enlightenment on social relationships in which I could give shape to my ideas. Only I was a bit more revolutionary, more to the left than the socialists in Vienna" (Arntz quoted in Benus 2013: 234).

There were also tensions between the theory of *factography* as developed by El Lisitskiy as a means to assemble facts through such means as photomontage (Anysley 1994), and the "sociological graphics" developed by Seiwert and his fellow Figurative Constructivists: their goal was to "present people as products of their relationships (...) show individual people as actual constituent parts of an operation which the employer can calculate numerically, like other inventory" (Tschinkel 2013). In its intentional way of overlooking any distinction between living and non-living things, this approach can be seen as pre-figurative of both cybernetics and the methodologies developed by Barad and Haraway (Tompsett 2015). However, before completing this circuit, we shall make a further ingression, this time introducing the triolectics of Asger Jorn and its impact on Situationism in the 1950s, twenty years after Seiwert's death.

Jorn gave a talk at the International Congress of Industrial Design, Milan 1954, where he advocated a new concept of truth based on Bohr's complementarity and, as with Seiwert, goes beyond the distinction between art and science. He echoes Seiwert again: "the word *art* (*Kunst*) means that which we can do, our capacity (*können*) in any domain. Thus we are all artists, and all techniques are arts." (Jorn 2011b: 273). In his "Notes on the Formation of an Imaginist Bauhaus" he declared "Artistic research is identical to 'human science'" (ibid, 275).

Further, Jorn developed the Triolectic from his critical examination of Bohr's Copenhagen Interpretation. In his introduction to *Naturens Orden* Jorn explains that this work is as much equally a critique of Neils Bohr's complementarity and Dialectical Materialism arguing that they both share an identification of the instrument and actuality (Jorn 2002: 18). He argues that this duality can only be resolved by the introduction of a third element and generates a triple viewpoint of instrument: the artistic, the technical and the scientific. He further developed this analysis in *Signes Gravés* producing

a series of Triolectic Schemas: This manner of thinking persisted with Jorn through his period in the *Situationniste Internationale* (1957–1960) into his subsequent activity

Tektology, Figurative Constructivism and Situationism

"The slave of proletarian culture is the machine" (Seiwert 1920b).

"Facing the masters/slaves stand the men of refusal, the new proletariat, rich in revolutionary traditions. From these the masters without slaves will emerge, together with a superior type of society in which the lived project of childhood and the historical project of the great aristocrats will be realized" (Vaneigem 1979).

In the 1950s Jorn started collaborating with Guy Debord, who saw revolution not merely in terms of "politics" or "culture" but in terms of "a superior organization of the world" (Debord 1981). They were key figures in the foundation of the *Situationniste Internationale* (SI) although Jorn was to leave in 1960. The organization continued until 1972, and subsequently has been deemed to be very influential as regards avant-gardism in art and politics.

Many elements of Seiwert's thought can be seen resurfacing within the programme of the Situationists particularly in their manifesto (*Situationniste Internationale* 1994):

- total participation against the spectacle
- the organization of the directly lived moment against preserved art
- global practice and collective production against particularized art
- an art of interaction against unilateral art

Vaneigem's *The Revolution of Everyday Life* (Vaneigem 1979) developed Situationist ideas as regards the possibilities of restoring the creative aspects of art into the interstices of daily life in the context of a critical attitude to cybernetics.

Conclusion

This has been an exploratory exercise in applied tektology. I have used some of the formal categories developed by Bogdanov in his tektology to research tektology through an exercise in applied tektology. I have found a substantial range of correspondences, such as between Bogdanov's conjugation and Barad's diffraction – to which we could add Jorn's "conjunction", a term Jorn develops in relations to his theory of the "situation" but one which he does not really develop beyond that (Jorn 1963: 218).

What has not been produced is a mechanical set of causal relations, whereby subsequent events or theories are determined by anterior activities. It is not that the tektological methodology does not require such an outcome, rather it is antithetical to such a result. Neurath was very keen to make clear that in his promotion of the unity of science, he was not seeking to centralize all science in a hierarchy, whether derived from physics or maths. Siewert and his comrades in *Die Aktion* fought the centralizing process even when run by those with whom they shared many ideas. Bogdanov, once one of the key leaders of the Bolsheviks, later dropped out of any party involvement. Debord was much more ambiguous about leadership, in terms of his actions in relation to his organizational pronouncements in the *Situationniste Internationale*. However, Jorn was much more consistent in rejecting any centralizing structure.

I have constructed a more diffuse set of relationships, sometimes finding textual evidence for a relationship, at other times relying on a more tangential relationship where there is no indication that a subsequent thinker was aware of their predecessor. In applying my interpretation of the concepts of tektology I have uncovered some hard evidence – i.e., the textual references made by Seiwert, which had eluded previous Bogdanov scholars. However, in comparing the Situationists with Seiwert, whilst I have uncovered circumstantial evidence of similarity, I have found no unchallengeable links. Nevertheless I regard both cases as being successful: after all this is not a forensic investigation.

If some phenomenon is real, is actually a constituent part of social relations amongst which we live, then when different groups of people stumble across such a phenomenon, then the fact that they do so independently should reassure us of the phenomenon's generality. In contra-distinction to a world where claims for priority are a feature of both scientific research and artistic practice, such claims are not relevant for the tektological approach.

This has a political impact, which both Seiwert and the Situationists were at the forefront of proclaiming, long before the advent of open source programming and the development of the creative commons. Both saw that open collaboration was essential for a truly participatory approach to culture. In this they were much more explicit than Bogdanov, in whose thinking it is much more implicit, certainly as far as one can judge from the limited range of his works available in English. Likewise it is important to reject the centralized scholastic thinking that first appeared within "Leninism" and can perhaps be identified as appearing with Lenin's attack on Bogdanov in 1909 in *Materialism and Empirio-criticism* (Lenin 1909; 1927). Bogdanov's criticism of Lenin's method as being authoritarian can be compared with Jorn's interpretation of complementarity which states that we can never find a singular truth, but that as humans we must balance the different instrumental methods at our disposal (Jorn 2011a).

With the innovation of the World Wide Web, as the initial quote from Tim Berners Lee shows, the aggregation of information is not constrained by the division between art and science. This technology has provided an extensive material base for realizing the proposals put forward by people like Bogdanov and Seiwert nearly 100 years ago. Likewise, the collaborative processes outlined by Seiwert and the SI can be seen in the contemporary practices known as commons-based peer production (Benkler 2002). Now, more than ever, the assertion of intellectual property rights, the maintenance and even the periodical extension of copyright and patents serve as a hindrance, cutting off vast numbers of people from adequate access to knowledge in order to protect the profits of various corporations. Capitalism has shown itself sufficiently adaptable that it would be foolish to imagine that simply liberating ourselves from intellectual property relations would be sufficient to bring capitalism to an end. It may, however, be impossible to bring capitalism to an end *without* such a liberation.

Commentary by Redas Diržys

This is a triolectically conjugative commentary to Fabian Tompsett's article Towards a tektology of tektology, which I foresee playing a significant role in not only drawing attention to the work of Bogdanov but also in understanding that the commentary is key to implementing his [Bogdanov's] theory. The article seeks to elaborate a revival of Bogdanov's tektology as a method of viewing the world of ideas not in a mechanist way of mathematical (or physical) logic, but rather as a living organism. Tompsett employs it to replace Bogdanov into the context of workers' movements instead of following the formalist academic line drawn from Ken Wark's blending of Bogdanov with contemporary Californian feminist theorists Donna Haraway and Karen Barad.

As a scholar myself, I prefer directly action related theories instead of those based on ideological constructs (i.e. centralized scholastic thinking). Tektology as a method for (self) organization of living matter embraces diverse and seemingly contradictory approaches as conjugation, ingression, and disingression, and is a tool for dealing not only with contemporary dynamic informational systems and mechanisms, designed to produce meaning, but also with social structuring, dependent on how this meaning is produced.

There I see a few challenges. From one side we need to overcome the domination of dualism and particularly in the form of nationalism/fascism (in a broader sense – as a way of mechanically linking things/beings/ideas together). From another side there is an inherent challenge in dealing with differences instead of seeking unity in whatever form of class(ification) in a mood of political party, where systematic discourse-based thinking and/or structural racism is encountered. Bogdanov's tektology as a theory itself is structured in a classical way and does not lead directly towards action, while Tompsett's 'tektology of tektology' evolves around the continuous interaction of elements which are not necessarily homogeneous (and neither even have any proven linkage at times). There I emphasize the moment of crucial importance: the linkage to Asger Jorn's proposed method of triolectics, which takes its roots in Niels Bohr's complementarity theory and Henri Poincare's "three body problem". In fact, Tompsett constructs his article exactly on the (multi)-triolectical structure, which could be called three-sided football (3SF according to Jorn's method) or quantum chromodynamics (according to quantum physics). *Triolectization* or (tripolarization) of thinking allows one to avoid being trapped in conflict-based antagonism, because tripolar interaction produces 3 potential conflicts, where each could appear only by superseding another two. So reasoning comes closer to nature of living matter than to abstracted mechanistic logic, which continues to dominate in academic spheres insofar as the former is constructed on quadriolectic (binary) or classical semiotics. But the point is even – there to paraphrase Marx – not to set up a triolectical situation, but to really play it. Only those who ever tried to play 3SF (Jorn never did that, just theorized) can understand that all tektological approaches prevail in this game, and then comes adequate thinking – thinking as a living thing and not mere consuming of terms. There I see the future direction of contemporary capitalist specializations (education, science, art, philosophy, politics etc.) likely to be abolished.

The very idea of tektology, applied to tektology, resembles another method – plagiarism – invented by off-situationist groupings of neoists in the eighties. I found it relevant to apply to my commentary as the first paragraph was plagiarized (and further detoured) from Tompsett's article.

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Fabian Tompsett has been active as a publisher and translator of Left Communist texts through such publishers as Rising Free, Unpopular Books and Transgressions: A Journal of Urban Exploration since the 1970s. He combined the roles of printer – publisher – distributor/bookseller in the pre-internet age, but is now active on the internet, particularly with Wikipedia. The success of this vernacular encyclopaedia led him to research earlier approaches to encyclopaedism, focusing in particular on Bogdanov's Workers' Encyclopaedia and Neurath's International Encyclopaedia of the

Unified Sciences. He was thus well-prepared when he discovered he was approaching the German Left Communist movement, albeit from a new perspective. This work complements previous research he has done as regards Asger Jorn, looked at in terms of the conjugation of Art, Science and Politics.

Redas Diržys studied at Tallinn Art University (MA in 1991) and is an iconoclast worker concerned with education, socio-cultural critique, activism and production of meaning in (non)visual forms. Since 1993 he was running unofficial initiatives of locally based international art events which eventually shaped Alytus Psychic Strike Biennial. Currently he elaborates reproletarianization and strike technologies to be infused into structures of ruling class culture and is associated with transnational structure of DAta Miners & Travailleurs Psychique – DAMTP. Since 1995 he is director of Alytus Art School. Since 2004 – lecturing at Alytus College. In 2009 officially dissociated himself from artistry and attributes himself to psychic workers. Lives and works in Alytus.

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