



Seiwert (1926) *Vier Männer vor Fabriken*

Science and the Working Class

Alexander Bogdanov 1918

Preface to the English translation

This text is a summary of a presentation which Alexander Bogdanov (1873-1928) gave at a conference for the Proletkult organisations of Moscow, 23-28th February 1918. It was written during a period in which Bogdanov was very active in Proletkult. Another version of his speech was given at the First All-Russian Proletkult Conference held 15-20 September 1918, and was reprinted after this conference with 'Methods of Labour and Methods of Cognition' which had previously appeared in *Пролетарская культура (Proletarian Culture)* No. 4, August 1918. During the summer of 1918, Bogdanov was involved in the founding of the Communist University, founded 25th June 1918 (Biggart *et al*, 1998). It was a “higher education establishment conducting social and natural scientific research” which in pursuit of its tasks “researched the elaboration of questions of history, theory, and the practice of socialism” (Bogdanov 1977). These experiences then feed into the discussion at the September Conference where Bogdanov gave a speech on the Workers' University. This was further elaborated in 'Proletarian University' which appeared in No. 5 of *Proletarian Culture* which came out in November 1918. This latter text is in preparation.

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Science and the Working Class

1. To say that the class character of science lies in *defending the interests* of a given class, is just an argument of a pamphleteer or a complete falsification. In reality, science may be bourgeois or proletarian by its very "nature", including its *origin, designs, methods of study and presentation*. In this fundamental sense, all the sciences, social or otherwise, including mathematics and logic, may and actually do have a class character.

2. The nature of science is to be *organized collective experience of humanity and the instrument of the organization of the life of society*. The ruling science in its various branches, is bourgeois science: it has worked on all representatives of the bourgeois intelligentsia, it is the concentrated material of the experience accessible to the middle classes; they have understood their bourgeois point of view and have made this generally understandable, they have organised affairs according to their own processes and habits. It follows that this science was used, then as now, an instrument of the bourgeois structuring of society: firstly as an instrument of struggle and victory of the bourgeoisie over the classes that had had their day, and then as an instrument of their rule over the working class, and at all times this organizational instrument for the development of production has been realised under the leadership of the bourgeoisie. Such is the organising strength of this science which at the same time displays its historic narrowness.

3. This narrowness is already being felt in the very material of science, that is to say in the content of experience it organises; this is especially so in the social sciences. Thus, in the study of relations of production, bourgeois science could not grasp or to distinguish the particular higher form, of collectivist fraternal cooperation, because this form is virtually unknown to the bourgeois classes. Even more significant is the narrowness of this fundamental perspective which is evident across the whole of bourgeois science and which is due to the same position of the bourgeois classes in the social system, including their way of life. This special feature is the split between science and its real basis: socialised labour.

4. The separation between mental and physical labor mark the origin of this rupture. In itself, this does not exclude the consciousness of the indissoluble connection of practice and theory in the social process into a single whole. But none of the bourgeois classes can perceive this; it is outside their field of vision. These classes are educated in the individualised economy, private property, and the competition of the market; that is why the citizens have an individualistic consciousness and the social nature of science is incomprehensible to them. For them, science is not a collective experience of organized labor nor an organizational instrument of collective work; for them, knowledge is something in itself, even something opposed to practice, with a special "ideal", "logical" nature, and if in their view it should lead to some practical outcome, they attribute this precisely to this higher nature, and not because it has arisen from any practice which may have shaped it. This particular fetish that can be named the "fetishism of abstract knowledge."

5. Even as specialization grew, the bourgeois world was developing all areas of its creation, science in particular. Science is split into an ever larger number of branches, increasingly divergent, always weakening the living relationship that existed between them. The individualistic separation of men sharpened this process because although the pooling of ideas is still a need for specialists working in the same industry, this necessity is relatively less compelling for specialists working in different branches. This path led Science to a disparate constitution, similar to that of capitalist society itself, and to extend this comparison, its development follows the same anarchy.

This is the result: it has accumulated in all its branches an enormous wealth of material and also a wealth of methods for shaping this material. However, bourgeois science has been unable to achieve full, systematic and harmonious organisation. Each specialty has created their own language that has become incomprehensible not only the broad masses but even to scholars of another specialty. The same correlations, the same experimental links, the same processes of knowledge are studied in different branches, as if it were quite different things. The methods of one branch only share knowledge with other branches with much delay and difficulty. This is the origin of the narrow horizon, the corporatist narrowness that develops in men of science, weakening and slowing their creation.

6. Also as much as science has given a unity for technical methods, the development of mechanised production has also sparked a trend in science to unify methods, to overcome the harmful aspects of specialization. Much has been done in this direction, but in the meantime, the radical rupture between the individual branches of science remains. So far, this trend to unification may only impact on the details, but it can not lead to harmonisation in a single organization of science as a whole.

7. Bourgeois science is not very accessible to the working class; it is dense, its specialized corporatist language is obscure and complicated, and further, as it is of course become a product in capitalist society, it's expensive. If isolated proletarian representatives, at the cost of enormous expenditure of energy, become masters of one or the other of its branches, its class character is then felt: as they are cut from the collective working, they commit to a path of rupture with the life, the interests and thought structure of the working community from which they come. The corporatist narrowness doubles here the tendency towards an intellectual aristocracy. In a word, as a bourgeois ideology¹, from its origin, science organizes the soul of the proletariat according to a bourgeois model.

8. All this gives to the working class specific missions concerning contemporary science:

- we must review it from a proletarian point of view, in content as much as form of presentation;
- the creation of a new organization, as much for the elaboration as for the dissemination amongst the working masses.

In most branches of science, accomplishing these tasks will mean a methodical consideration of the legacy of the old world. But in some, a large and deep autonomous creation will be required.

9. The review of the content of science must first annul this break with collective working practices: the material of science must be understood and informed as the practical experience of humanity; the schemas, conclusions, formulas must be seen as tools for organizing all the social practice of humanity. At the moment, this work is done almost exclusively in the social sciences, but with insufficient structure and method; it must be extended to all areas of knowledge. This transformation produces a science vitally close to the working class:

- Astronomy as the science bringing together the work activity in time and space
- Physics as the science of the resistances encountered by the collective work of humanity
- Physiology as the science of the labor force, logic as a theory the social agreement of ideas.

¹ “Our usual ideas about the social relations between people imply *mutual understanding* as their first precondition. (...) What is the essence of this mutual understanding? It is contained in a common language and the sum of concepts which are expressed by this language, in what is called common “culture” or, more exactly, ideology” *Bogdanov's Tektology Book I* (Bogdanov 1996)

That is to say, such organizational tools of work will penetrate into the consciousness of the proletariat more immediately, more easily and more deeply than those same sciences in their present form.

10. It is further necessary to do everything possible to eliminate the disparate nature of science that has led to the increase of specialisation; the unity of scientific language must be the objective, matching and generalising 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. It will be embodied in the universal organizational science necessary for the proletariat, the future organizer of the whole life of mankind in all its aspects.

11. With regard to the forms of the presentation of science, it is slightly easier, without prejudice to the essence of what is presented. Recently, the work of the democratisers of science² has shown how it is possible to advance in this direction, whether as regards the usual presentations of the useless scholastic hodgepodge or by repeating the same thing under different names in neighbouring branches. Simplification has already reached a sufficient degree for a single review of science from the viewpoint of collective of work which will release science from the abstract fetishism which is a source of the pseudo-problems and unnecessary devices which were often the subject of 'evidence' in the old mathematics, mechanics or logic, etc.

12. The review of the content and of the transformation of the external form of science will constitute its basis, that is to say its "socialism", its mode of adaptation to the tasks of the struggle and socialist construction. The dissemination of knowledge and scientific work must be organised in parallel. The two things are inextricably linked: they must be embodied in life in terms of the *Workers' University* and *Workers' Encyclopedia*.

13. The Workers' University shall consist of a system of cultural and educational institutions with levels which converge to a single centre for training and organization of scientific forces. At each level of the system, the general education courses must be complemented by practical, technical and scientific courses, of use to society. The unifying of principle of programmes at each level and their complementary teachings should not hinder the freedom to try to perfect the particular programs or particular teaching methods.

The basic characteristic of the relationships between teachers and students should be fraternal co-operation, in which the competence of the former does not become sovereign authority nor the reliance of the latter engendering passivity and the absence of criticism. Education must primarily contain the assimilation of methods.

14. The development of the courses, and in conjunction with this, the work of publication of scientific workers in the Labour University, should be geared towards the creation of a Workers' Encyclopedia which should not be a mere summary of scientific findings, but above all a complete, harmoniously system which presents the methods of practice and knowledge in their vital links.

² As an example of such democratisers see John Dewey (1859-1952), Ernst Mach (1883-1916) and Yakov Perelmann (1882-1942). Perelman was influenced by Mach and probably Bogdanov as well (Siemsen 2010).

Translators Notes

This English translation was made using 'Science et la class ouvrière', the French translation by Blanche Grinbaum of 'Nauki I rabochii klass', which appeared in *La science, l'art et la class ouvriere* (1977). Additional contextual information was gleaned from *Bogdanov and His Work* (Biggart et al. 1998), which provides a comprehensive list of Bogdanov's published works and archival holdings. The French book cites the piece as coming from *Пролетарская культура* (*Proletarian Culture*) No. 2, however Biggart *et al* suggest it was published several places elsewhere (ibid pp. 315-6).

Gender specific terms have been rendered in a gender free way (e.g. “humanity” for “man”) for ease of reading rather than to mask the gendered language used. Footnotes have also been added for ease of comprehension for a modern readership. Minor formatting changes have been made from the French version.

This translation is part of ongoing research into Bogdanov and his relevance in the twenty-first century.

Title Image:

Vier Männer vor Fabriken (1926) by Franz Seiwert (1894-1933) Seiwert participated in the discussion about Proletkult in the pages of *Die Aktion* in the early 1920s. This painting is currently in the Hamburg Kunsthalle. (Bohnen 1978)

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