

Decline in scientific research in Serbia began in the late eighties, but the really serious fall in scientific productivity began with the "wars" in Croatia and Bosnia (in which, according to the official line here, Serbia did not participate). The sanctions imposed on Serbia in 1992 by the UN Security Council further deteriorated research facilities at scientific institutes and universities in Yugoslavia, as can be seen from statistical analyses (see for example *The Scientist*, 1997). Though the embargo was on "official science" only, and despite the fact it was lifted in 1995 after the Dayton agreement, its devastating effects have continued to affect research activities in the country.

The disruption of links with the international community has affected the intellectual sphere in Serbia in numerous ways. For pure science, the most damaging consequence of the embargo was an almost complete end to the importing of international scientific journals. Since the

around Serbia, the prospects for science in the country look very dim indeed.

But in this country, which has undergone a steady downward spiral in every respect during the last decade, it is the so-called "internal sanctions" imposed by the present regime in Serbia which are having the most devastating effect on scientific activity and intellectual life. The recent measures taken by the Serbian government against academics are the best examples of irresponsible politics, if one may call it politics at all. The new University Act, which was passed by the Serbian Assembly (which meets in the Serbian Parliament in Belgrade) in July this year, has removed practically all, already small, autonomous rights from universities and has turned them into (Party owned) enterprises. Under the new Act it is the government that appoints rectors and deans, what used to be the right of universities and faculties. Also, in practice though not on paper, deans choose the university

tion is. This has been designed as a means of getting rid of "unsuitable staff," beginning with liberal-minded professors.

The first practical measure taken by the authorities was to dismiss all university staff, and then force all who wanted to remain at a university to sign a "contract" with the university. These contracts are in fact pledges of loyalty to the regime and have a twofold purpose: firstly, to fire all those who are not obedient, and secondly, to humiliate the rest, who would agree to this shameful practice. The purging has already begun. One of the first victims was Vladimir Vodinelic, a professor, ironically, in the Faculty of Law at Belgrade University, who has been an active member of an informal forum set up by the University staff called Board for the Defence of Democracy. Since Professor Vodinelic refused, together with a number of other employees at the faculty, to sign the "contract" he has been fired on grounds which are as absurd as they are paradigmatic of the whole situation. As an assistant professor he had applied for the post of full professorship and a (positive) report on him was signed by the relevant referees, including a certain Oliver Antic. Now that Professor Antic has been appointed Faculty Dean he has refused to comply to his previous decision and has fired Professor Vodinelic from the Faculty. Fifteen colleagues of Professor Vodinelic from the same faculty have entered a strike, as an act of solidarity, and are facing dismissal themselves. (According to the new Act, a dean has the right to fire anybody who fails to appear at the faculty for 5 days in row). Three of them have been fired subsequently (the regime is careful not to get rid of all disobedient staff at once and does it 'in packages'). There is a similar situation at the Faculty of Electrical Engineering where 12 professors and assistants have been suspended from teaching.

As for research institutes, they have been cut off from universities. In the case of Belgrade University (by far the largest in the country) all eight research institutes have been cut off from educational and research domains at the University, and thus from the links that were essential for teaching and academic research. A new Science Act is in the course of preparation, according to a Serbian rumour, but the scientific community is not being kept informed of this, as was the case with the previous University Act. The general trend is to reduce the research institutes to laboratories for applied research, which means that fundamental research will be practically abandoned.

The money from research funds is be-

The grave situation in which universities and scientific research in Serbia have been left after the recently adopted "University Act" has greatly disturbed the academic circles in Yugoslavia, as well as the overwhelming majority of intellectuals in the country. It deserves the attention of the international community, if for nothing else than as another example of the authoritarian regime's suppression and its tightening grip on the society in general

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Science in Danger

State is in a state of bankruptcy, this severe shortage of scientific literature has continued and the Ministry of Science and Technology of Serbia has ceased to provide money for purchasing foreign journals. International research contracts at State level have been frozen and only a small number of them have been renewed. Possibilities for attending international conferences have been severely restricted, though many conference organizers do provide financial support for participants from Yugoslavia. With the so-called "outer wall" (*ie* unofficial and remaining official sanctions) still existing

staff, such as professors, which creates opportunities for manipulation and corruption, as deans are appointed by (or from) the ruling coalition headed by Slobodan Milosevic and Vojislav Seselj (pronounced "Sheshely")—these two politicians (*sic*) have been responsible, more than any other persons, for the misdeeds committed in Croatia and Bosnia during the recent "wars", and consequently for the sanctions imposed on Yugoslavia, and Serbia in particular. The deans have the right to displace anybody from his (or her) post and transfer them to another, no matter how inappropriate the new posi-

ing distributed according to criteria which have nothing to do with science and common sense. "Unsuitable" team leaders simply do not receive research grants, while the political party-run institutes, its laboratory managers and team leaders, do receive grants but don't know what to do with the money and spend it on (semi)official banquets and parties, luxurious office equipment, (semi)official travels *etc.* Projects led by Party exponents are never officially judged unsatisfactory—projects with a low scientific output, where some researchers have not published a single paper in international journals, have passed Ministry criteria, presumably because they include researchers strongly tied to the regime.

Many institute employees, including scientific researchers, have been engaged in private businesses such as running travel agencies, while still retaining (administratively, anyway) full time jobs. Many researchers have abandoned science and have moved to private firms, where they can earn more than in the State owned institutions. Some researchers spend long leave-of-absence periods in laboratories abroad, but the original institutions count their research results, such as published papers, as if the research had been conducted at home. This practice makes statistical analysis, such as evaluating citation index, very unreliable. (Many researchers are spending frequent periods abroad, forming a new class of what might be called a nomadic scientific population. This phenomenon seems to be common to all East European and former Soviet Union countries and resembles the practice in sport such as soccer—it appears to be beneficial to individual careers, but makes the notion of national science senseless).

The new University Act will inevitably lead to a lowering of teaching level at universities and a further decrease in scientific output in Serbia, already drastically damaged by sanctions. Many from the academic staff have signed a petition against the new Act, and many have refused to sign new contracts. A number of professors have already resigned for the sake of their self-respect. In July a number of liberal staff founded an association entitled University Protest of Serbia, which has alarmed many international institutions and organizations at the recent suppression by the government (*see for example the Website ups.opennet.org*). Many of these institutions, as well as many individuals, have responded positively to the appeal and have sent their protests to the government of Serbia and related institutions here.

In response to the continuing pressure from the authorities another forum has been set up: Association of Professors and Researchers, which Serbian authorities refused to register, but federal Yugoslav ones registered in August. It is expected that many teaching staff and researchers in Serbia will join the Society, whose president is Milan Kurepa, a former professor at the Faculty of Physics, Belgrade University, and member of the Serbian Academy of Sciences and Arts. Also, the Forum for the Defence of University Autonomy was recently set up, led by Nebojsa Popov, Chief Editor of the independent liberal monthly *Republika*. But there is a fear that this proliferation of associations will dilute the protest, as happened in a similar case: that of political opposition in Serbia in the early nineties.

Generally, universities here were not well prepared for an attack from the regime. This has been the main reason the attack has been so successful up to now. As for institutes, they are managed as a rule by Party exponents and are thus prevented from reacting to the measures which have threatened their scientific research (and even their existence).

Where does physics, and where do physicists, stand in all these attacks on the highest educational and scientific institutions? Not very lofty. Two research institutes, Vinca (a Yugoslav Dubna) and the Institute of Physics, previously the elite scientific centres of the country, have been cut off from Belgrade University by the new Statute. Only a single person from the Faculty of Physics (Milan Kurepa, now retired) has signed the petition, and the whole staff have signed "contracts". Out of about 200 employees at the Institute of Physics only 5 have signed the petition. It is not yet clear if Institute employees will be obliged to sign "contracts" too, but this will probably be the case. Incidentally, the newly appointed rector at Belgrade University is Jagos Puric, from the Faculty of Physics, who is known to be tightly bound to Slobodan Milosevic. Not incidentally, however, they are both Montenegrins (*ie* come from Montenegro), as the majority of new deans and chairmen of the university, faculty and institute boards are. The rest come from Seselj's Hercegovina lobby, thus reinforcing the so-called "Dinaric (highlanders) supremacy", evident in Serbia in the last few decades (people from Montenegro and Hercegovina, mountainous parts of the former Yugoslavia, are culturally and ethically very different from the rest of Yugoslavia's former population).

For the moment the situation is unsettled, but as winter progresses the practi-

cal consequences will become more conspicuous. Hopefully it will then have become clearer whether the pressure from inside and abroad will force the present regime to loosen its grip on the academic segment of the already ruined society.

In any case, it has become evident that the present situation is not to be considered a mere continuation of the communist dictatorship in Serbia (the last in Europe). The recent adoption by Milosevic's "ruling class" of the so-called Radicals of Vojislav Sesel, and their appointments in government, has changed the whole political scene here drastically. The force behind the political (*sic*) activities of this leader and his partisans is not an ideology, not even a political programme. Nor is it a nationalism (otherwise not absent in Serbia), even not a chauvinism. It is a sort of political hooliganism, or as somebody put it "gypsy-like fascism." These features were already present in Milosevic's Serbian Socialist Party, though to a lesser extent, before the newly formed coalition. It should be stressed that Dr. Seselj's party is the principal exponent in this part of Europe of the extreme European right, as Mr Zhirinovskiy appears to be in Russia, whose stronghold is in France (Le Pen).

It is important to draw the attention of the international community, European in particular, to the fact that these oppressive measures against academics and against the state of Serbia are not just the isolated acts of whim of an irresponsible regime. They constitute part of an unfinished mosaic, the pattern of which can now be discerned.

The recent suppression of the independent liberal media in Serbia (all liberal

universities here were not well prepared for an attack from the regime

dailies have been practically prohibited) followed by a prohibition on all foreign programme transmissions in local TV and radio media (BBC, VOA, CNN, Deutsche Welle, Free Europe *etc.*), and the Information Act which has just been passed by the National Assembly (and was secretly prepared, just like the University Act), will result in a total information blockade here. What is it a preparation for? People here who have still preserved some common sense fear the worst for the near future.

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