Empathy, curiosity and creativity: The relevance of Sukhomlinsky's legacy in the 21st Century

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Abstract

The development of science and technology has given humanity great power over its environment, but it has also created serious problems, including climate change and the proliferation of nuclear weapons. The future of humanity will depend on the qualities we educate in successive generations. We will need empathy, in order to develop positive relationships between people and nations, and to care for all the diverse species that populate our planet. We will need curiosity in order to keep up with the growth of knowledge, and we will need creativity to find solutions to very complex problems.

Sukhomlinsky's system of education was one that addressed multiple aspects of human development: physical, emotional, social, moral, intellectual, vocational and spiritual. He developed specific methodologies for the development of empathy, curiosity and creativity. To develop empathy, Sukhomlinsky taught children how to read facial expressions, paying particular attention to the eyes. He put children in situations where they had the opportunity to care for plants, animals, family members, friends, and other members of the community. To develop curiosity, Sukhomlinsky took children on frequent excursions into natural environments and to local work places, and exposed them to natural phenomena that aroused feelings of wonder and amazement. He encouraged them to ask questions about what they observed, and to seek answers to their questions through reflection and reading. To develop creativity he employed teachers with diverse interests and work skills, and established a program of extracurricular activities that provided children with many opportunities to discover their talents and creative abilities.

In this paper I shall explain why I believe that Sukhomlinsky's legacy is relevant to educators in English speaking countries in the 21st century. Sukhomlinsky was first and foremost a practising teacher, who thought deeply about his work and constructed a theoretical framework for it. His writing appeals to other practising teachers, because he describes his actual experience working with real children, and his theories arise from this practical experience. I believe the main contribution I can make to understanding Sukhomlinsky's legacy is as a translator of his works into English, and in this paper I shall provide translated quotations from his work, so that Sukhomlinsky can speak to the reader in his own voice, to the extent that translation allows.

The world faces many challenges and opportunities in the 21st century. Humanity's vast population, and the power conferred on it by the development of science and technology, have led many to label the current geological age the Anthropocene. Humanity is now the dominant influence on the world's ecosystems, and global warming, with its impact on the massive bodies of ice and snow that cover our planet's poles and mountains, may even affect the movement of the Earth's tectonic plates (McGuire, 2012). Climate change and the proliferation of nuclear weapons make it imperative that the human race collectively show the wisdom and restraint to ensure the survival of civilisation, and the protection of the earth's biosphere.

However, our civilisation is developing in a direction that does not encourage self-restraint, but rather encourages rampant consumerism. Economic growth is fuelled by constantly increasing consumption of our natural resources. Technology is gradually taking over many of the functions that were previously performed by the workforce, and, for the majority of people who live in technologically developed nations, a great deal of leisure time is spent in passive pursuits such as watching television and surfing the internet. Western societies are experiencing an increase in mental illness and drug use. Some of our young people are retreating into the virtual reality of a digital world and losing their connection to the natural environment. Increased reliance on technology for communicating and making friends may lead to a weakening of the skills involved in direct face to face communication, where the ability to read body language and the expressions of face and eyes are important. The development of technology and consumerism has led us to seek instant gratification of our desires, and advertising encourages us to multiply our desires, and increase consumption, in order to encourage economic activity, so that businesses may profit.

Our education systems need to respond to all these challenges, but increasingly education is being subordinated to the needs of the economy, and even being seen as a business that must turn a profit in order to fund itself. In Australia, universities are now consumer driven, and many disciplines, especially in the humanities, are under threat, as they are not seen as contributing to the economy, or as providing a pathway to a well-paid occupation. Fewer people are studying disciplines such as history and philosophy, and the teaching of some foreign languages is under threat. Our school systems are dominated by standardised testing of literacy and numeracy skills. Increasingly schools are subject to systems of management that prioritise the collection of data through standardised tests, and give teachers less opportunity to develop holistic approaches to education. Formal instruction in literacy and numeracy is being initiated at an earlier age, and early childhood educators are being forced to abandon play-based approaches, as they struggle to implement a more formal curriculum. This is often to the detriment of social skills development, and can also give rise to negative attitudes to study, as children are asked to engage in tasks for which they are not developmentally ready.

Sukhomlinsky died in 1970, before the digital revolution took place, and we may question the relevance of his approach today. Indeed, in Australia the study of history of education and comparative education has all but disappeared from teacher training courses. However, as has often been said, 'those who cannot remember the past are condemned to repeat it', and it would be a great shame if we were to forget the accumulated wisdom of the past. Sukhomlinsky's system of education was one that addressed the development of the whole person, rather than just the intellect, and that aimed for the development of responsible citizens who would have a beneficial impact on the development of society and the world. Sukhomlinsky was also remarkable in anticipating the needs of the future, and in some ways his approaches seem even more relevant now than they were when he was alive.

In this paper I shall examine the holistic nature of Sukhomlinsky's approach to education, which addressed children's emotional, moral and aesthetic development, as well as their physical, intellectual and vocational development. Figuratively speaking, we may say that Sukhomlinsky's approach engaged children's hearts, heads and hands, through the development of empathy, curiosity and creativity. Sukhomlinsky engaged children's hearts by helping them to develop empathy for all living creatures, including family members, classmates, elderly members of the community, animals, birds and plants. He also taught them to appreciate the beauty in nature, in art and music, in human relationships and in work. Sukhomlinsky engaged children's heads through their emotions, through a sense of wonder and curiosity about the phenomena of nature, and a sense of admiration for human knowledge, skill and heroism. Sukhomlinsky engaged children's hands through constant involvement in work and creativity, in the orchards and fields around his school, in greenhouses and workshops, in technical clubs and laboratories, in art rooms and in other creative pursuits such as music, literature and puppetry.

Empathy

Empathy is a key human quality, and essential for positive human relationships and mutual understanding. A complete lack of empathy is considered a pathological psychological condition. Empathy takes time to develop in young children, and can be encouraged or inhibited by the behaviour of the adults responsible for their care. (See Hoffman, 2000 and Demetriou, 2018.) Sukhomlinsky realised that empathetic children did not 'fall from the sky', and needed to be educated, and he devoted a great deal of attention to the development of empathy.

Many of Sukhomlinsky's works contain descriptions of his approach to developing empathy, including *Metodika vospitaniya kollektiva* (Methodology for educating the collective), *Serdtse otdayu detyam* (My heart I give to children) and some chapters in *Sto sovetov uchitelyam* (100 pieces of advice for teachers), notably chapter four, entitled 'Bud'te dobrozhelatel'ny!' (Have good will!).

In *Methodology for educating the collective* Sukhomlinsky writes that we must educate people of whom folk wisdom says 'he would not hurt a fly'. (Sukhomlinsky, 1981, 100) He writes:

> Socialisation… is quite inconceivable, if a child has not been brought up to have elementary feelings of empathy. Children come to school with varying levels of development of empathy ….

> … Educating the heart's capacity for empathy is one of the most subtle and difficult tasks facing families. The ability to put oneself in another's shoes, to mentally become that person, this is what wise parents teach their children from the first steps of their conscious lives. In my opinion, the emotional state of empathy is the most subtle and demanding sentinel of our conscience. When we conduct educational work with parents we strive to ensure that, from early childhood to the awakening of first love, a young person experiences compassion for all living creatures. How a person relates to a flower or a butterfly, to a homeless puppy or a baby sparrow that has fallen from its nest, to a stray dog that has made the school its home, or to a kitten that has been abandoned, all of these things determine the human beauty and culture of our future citizens, workers and family men and women. (Sukhomlinsky, 1981, 107-108)

In *Sto sovetov uchitelyam*, Sukhomlinsky describes some practical lessons he gave to grade one students, to develop their ability to read faces, and especially the expression in people's eyes:

> I always considered it one of my most important educational objectives to teach children to apprehend the world with their hearts, to feel with their hearts the emotional states of other people—not only those who are near and dear, but any compatriot they encounter on their life's journey. To teach little children to sense when someone they meet is heavy of heart, when they have met with misfortune, is one of the most subtle educational skills. I want to share an experience of how a teacher can educate this ability in himself, how to educate emotional refinement in children, and how this refinement can provide a foundation for mutual goodwill.
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> It is spring, and in a field neighbouring the school women from the collective farm are working on a crop of beet. Each morning, as soon as the sun's red disc peeps above the horizon, the women walk to the field one after another. At this time my grade one students also come to the school grounds. We meet the sunrise in our Nook of Beauty, in a green classroom under the open sky. This is a large green shelter covered with grape vines that protect us from the heat of the sun. At a distance of only two or three metres from us the farm women pass by. We can see their eyes and every feature of their faces. If we sit very quietly, holding our breath, we can even hear their breathing. They do not see us. I teach the children: look into the women's eyes, learn to feel and understand what each of them is feeling—a serene peace of mind or the dark cloud of sadness. Each day we observe the same women, young and old. We are already accustomed to the way that one young woman, with blue eyes and thick plaits of red hair, a mother of two young children, always sings one song or another on the way to work. She often stops on a rise in the path, gazes at the blue sky, listens to the song of a lark, and smiles. 'She is enjoying life, she is happy,' I tell the children, and at the sight of human happiness we all experience joy as well. Another woman, as she turns onto the narrow path to the field, picks a few wildflowers each day, and we read in her eyes thoughts of something bright and joyful. Two young women approach a spring, flowing into the meadow, and look into it as into a mirror, rearranging their hair and admiring their beauty. Look children, in their eyes you can see a bright dream of the future. And that dark-eyed woman has not only picked some wildflowers, but has sat down on a stump and woven a garland from them. Of course such garlands are only made for little girls. Look into her eyes, children, and you will see the warmth of a mother's love. But look carefully, children, at that grey-haired lady. Look at her eyes, how sad they are. There is so much grief and longing in her eyes. Now she has stopped

> and looked at the sun, and at the village with its green orchards, and she sighs deeply. She is not following the path to the field, but is taking the road into the centre of the village. She picks wildflowers along the side of the road, and takes them to the war memorial, honouring those who died here in a battle with the fascists. She lays her flowers on a grave and weeps.
>
> Children this is the greatest grief in the world: a mother's grief. Now she is coming back past our Nook of Beauty. Look carefully, once more, at her eyes.
>
> The children sit, holding their breath. Not a leaf stirs, not a blade of grass. Everything around us is quiet. Now we can see the sad eyes of a mother. We hear her sigh deeply as she turns and looks once more towards the war memorial…
>
> No words or explanations are necessary for the children to see that the mother has lost a son during the war. I tell the children about this mother's great misfortune: she has lost both sons and her husband…
>
> One after another there are new lessons in coming to know people with our hearts. We set off towards the field and sit by the side of the road, and from time to time people pass us by.
>
> Studying people's faces, looking into their eyes, the children feel their inner worlds. One person experiences the joy of existence, another dreams of something exciting and dear to them, a third appears just tired and indifferent—no, that person is not feeling well…; a fourth person appears preoccupied—it may be just some insignificant, everyday concerns, or it may be anxiety about something important. Then we see an old man who is experiencing real grief. The children sit up with alarm. They have never seen such grief in human eyes. 'He is suffering… He is in real trouble… We need to ask him how we can help,' the children say.
>
> They approach the old man and ask, 'How can we help?' The old man places a gentle hand on the blonde head of my little Zina, sighs deeply, and says, 'You cannot help me, my dear children… My wife has just died in hospital… I'm going to get a car… We lived together for forty-seven years… You cannot help me, but I do feel a bit better, knowing that you are good people…'
>
> This is how emotional refinement is educated. It is a very subtle, lengthy process, demanding great tact, attention, thought, and a deep knowledge of the inner world of each child. (Sukhomlinsky, 1979, 463-465.)

Today Sukhomlinsky's system of education may seem idealistic, even Utopian. However the children he worked with were real children, who exhibited many different personality traits, including both kindness and cruelty. In *My Heart I Give to Children* Sukhomlinsky describes his work with a group of 31 children over a period of five years from 1951 to 1956. This was not long after the German occupation of Ukraine during the Second World War, and the families of the children Sukhomlinsky was working with had all been traumatised by the war. Sukhomlinsky writes:

> I was very concerned about the indifference of some children towards living things and to beauty in the surrounding world. I worried about actions that seemed, at first glance, to provide evidence of children's senseless cruelty….

…How could I awaken pure, kindly feelings? How could I encourage heartfelt benevolence, a caring attitude towards the living and the beautiful? On one of our walks in the fields we found a lark with a damaged wing. The bird was fluttering from one spot to another but could not fly. The children caught the lark. The little bundle of life shivered in their hands. Its frightened eyes, like beads, looked up at the blue sky. Kolya squeezed it in his hand and the bird cheeped pitifully. 'Is it really possible that none of them feel compassion for this bird left behind in an empty field?' I wondered, and looked at the children. Tears appeared in the eyes of Lida, Tanya, Danko, Seryozha and Nina.

'Why are you tormenting the bird?' Lida asked Kolya, with pity in her voice.

'Do you feel sorry for it?' asked the boy. 'Then take it and look after it.' And he threw the bird to Lida.

'I do feel sorry for it, and I will look after it', said the girl, caressing the lark.

We sat down on the edge of the forest. I told the children how, in autumn, migratory birds head off on a long flight. In the empty fields a few lonely birds remain. One might have a clipped wing; another might be crippled, having escaped from the claws of a predator … 'A harsh winter awaits them, with blizzards and frosts. What will happen to this lark? The poor thing will freeze. And it sings so beautifully in spring and summer, filling the steppe with enchanting music. The lark is a child of the sun. It says in the fairytale that this bird was born from the sun's fire. That is why our people call it *zhavoronok*: zhar means "fire", and voronok means "little raven". And we all know how much it hurts when a heavy frost makes your fingers numb and a searing wind chokes your breath. You hurry home, to a warm hearth, to a friendly fire … But where will this bird go? Who will give it shelter? It will turn into a frozen ball.'

'But we won't let the lark die', says Varya. 'We will find a warm place for it and make it a nest. Then it can wait for the spring …'

The children began to vie with each other, suggesting how to build a shelter for the lark. Each one wanted to take the bird home for the winter. Only Kolya, Tolya and a few other boys remained silent.

'Why take the lark home, children? We can make a warm nest for it at the school. We will feed it and treat it, and in spring we will set it free.'

We took the lark to school, put it in a cage, and placed it in a room we had set aside for the little ones. Each morning one of the children came to feed the lark.

A few days later Katya brought a woodpecker. Her father had found it in the forest. It looked as if, by some miracle, it had escaped from the paws of a predator. The woodpecker's wings hung limply, and dried blood was caked on its back. No-one knew what food to give a woodpecker—little beetles, perhaps? Where would you look for them? Under bark?

> ‘I know’, boasted Kolya. ‘They don’t just eat beetles and flies. They like willow buds and grass seeds. I’ve seen …’—the boy wanted to say something else but he was embarrassed. He had probably hunted woodpeckers.
>
> ‘Well, seeing as you know how to feed woodpeckers, you could collect his food. You can see how pitifully he is looking at us.’
>
> Kolya began to bring food for the bird every day. He still did not have any feeling of pity for the living creature. He was simply pleased to earn the admiration of his friends: look at our Kolya, he knows how to feed birds. But it does not matter if the awakening of kindly feelings begins with vanity. Once good deeds become habitual, they will awaken the heart. (Sukhomlinsky, 2016, 63-66.)

What is essential in these various descriptions? The key element is that Sukhomlinsky is sharing his own compassionate perception of life with the children in his care. As Sukhomlinsky himself wrote in *100 Pieces of advice for teachers*:

> Our work addresses subtle aspects of the spiritual life of the developing personality—the intelligence, feeling, will, conviction, self-consciousness. One may influence these spheres only through like action, through intelligence, feeling, will, conviction, self-consciousness. The most important means for influencing the spiritual world of the pupil are the teacher's word, the beauty of the surrounding world and of art, and the creation of circumstances in which feelings find their most striking expression—human relationships covering the whole emotional gamut. (Sukhomlinsky, 1979, 450)

Curiosity

Another important quality that may be encouraged by a wise teacher is curiosity. Curiosity is one of the driving forces motivating learning, and is an inherent human quality. Like empathy, though, it can be encouraged or discouraged by the adults responsible for the upbringing of children. In Australia a school improvement program designed by McRel International is being adopted in may state schools. It is entitled ‘Curiosity and Powerful Learning’ and is based on the principal that ‘curiosity drives the impulse to learn’. (Hopkins and Craig, 2015, 1). Sukhomlinsky wrote about the importance of curiosity, and how to awaken it, in *Kak vospitat’ nastoyashchego chelokeka* (How to educate a genuine human being):

> In the very notion of curiosity is hidden a deep meaning: it is a growing, ever intensifying need to know, to find out, to explain. The more actively people interact with the surrounding world, the more they see connections between things, facts, nuances, characteristics and the peculiar features of things, facts and phenomena, and the more they are filled with wonder and amazement. They discover many incomprehensible things, thousands of riddles that they must solve, no matter what. In this appearance of riddles and their solution is the essence of curiosity. Our task is to ensure that in early childhood all children become little thinkers, that their activity should lead to an irresistible avalanche of discovery. The only way to achieve this is through work, in the broadest sense of the word. Children’s work does not mean giving them a shovel and letting them dig till they are exhausted. Curiosity is a very delicate personal quality, and it is very easy to destroy it, awakening an aversion to work, if that work is beyond

> a child's strength or is too monotonous. I am talking about the work of a thinker. Children's work is an active vision of the world, a vision through which children become active participants in natural processes, and custodians of nature.
>
> For two years before they join the compulsory school program, I work with little children in a preparatory group. I would call this period a school in curiosity. This is first and foremost an educator making contact with a child's brain, which is so plastic and responsive during the preschool years. The main method employed in making this contact is to inspire children with wonder and amazement. The main instrument is a teacher's words, and the main form of activity is excursions to the source of thought and language, in the midst of the inexhaustible richness of nature. My aim is that a growing curiosity should become an autonomous force, governing the interests and aspirations of children. If I manage to establish curiosity as an inextinguishable flame, I know that children will never lack ability. (Sukhomlinsky, 1989, 85-86)

In the twenty-first century, we can easily fall into the trap of thinking that all the knowledge we require is available via search engines like Google, and accept whatever information we find online without question. A curious, questioning mind will not be satisfied with pre-digested knowledge, but will seek to incorporate new information into a meaningful world view. People with questioning minds will measure any information found through search engines against prior knowledge accumulated through life experience, and may reject information that is incompatible with prior knowledge. A person with an open mind may allow new information to challenge their world view, but will not easily accept information that is contrary to experience or to common sense. If we have little knowledge or experience of the real world, we are more easily misled by false information.

Sukhomlinsky understood that in the second half of the twentieth century (and this is even more true in the twenty-first century) learning must be a life-long pursuit. He knew that a self-motivated learner, driven by curiosity, will make far greater progress at school than one who is forced to learn through a system of rewards and punishments. He also believed that every student's mind is unique, and that each child views the world through a unique pair of eyes, drawn to different aspects of the world that surrounds them. In order to develop curiosity in children, Sukhomlinsky sought to expose them to natural phenomena that would surprise them, or awaken a sense of wonder. The sense of wonder, in turn, would raise many questions about the how and why of what was observed, and lead children to explore causal relationships in the natural world. This helped them to develop the capacity to think and reflect, and eventually to make abstract generalisations about their experience. A sense of wonder gives a powerful emotional stimulus to the brain, and arouses a thirst for knowledge. In *My heart I give to children* Sukhomlinsky writes:

> Observation of the children's intellectual work convinced me more and more that the emotional impulses flowing from the sub-cortex to the cortex (feelings of joyful excitement, wonder and amazement) have the effect of arousing the sleeping cells of the cortex and triggering their activity. Experience showed that a central focus for the intellectual education of little children must be the development of a thirst for knowledge—curiosity, inquisitiveness. (Sukhomlinsky, 2016, 150.)

For Sukhomlinsky the natural environment surrounding his school, and the agricultural activities conducted in that environment, provided an ideal setting for awakening children's curiosity. He loved to take his students on excursions to read the many pages of the 'book of nature':

> … I am reminded of an ancient saying attributed to Aristotle: thinking begins with wonder. Sincere feelings of wonder as one discovers the secrets of nature provide a powerful stimulus for burgeoning thought. Yes, I have been convinced of the deep meaning of these words a thousand times. Wonder and amazement give rise to questions. When the children see how so many different plants—tomatoes, cucumbers, barley—are growing in a solution of chemicals, they bombard me with questions: 'How does that transparent solution turn into thick stems, bright flowers with bees flitting about them, and juicy fruit?', 'Where does the life come from? The sun does not carry bits of green to the plant; it only gives light and warmth', 'Why do green cucumbers and red tomatoes grow from the same solution?', 'Why is the cucumber green and the tomato red when they are growing next to each other?', 'What is in those different coloured powders?', 'Why do plants get greener from humus in the soil?'
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> Those first visual demonstrations of the link between the living and the non-living are so important for children's ongoing intellectual development! As they reflect on the questions 'Where does living substance come from?' and 'How does the sun "make" the living out of the non-living?', children are preparing to read the great book of life, to learn the secrets of complex processes.
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> I saw reading the Book of Nature as a means of promoting independent intellectual activity. Concepts, pictures, images—these are just the beginning of active thought. 'Any method is bad', wrote Diesterweg, 'if it teaches students only perception and passivity, and is good to the extent that it awakens independence.' I tried to ensure that reading the pages of the Book of Nature did not take the form of just perceiving the pictures and images of nature, but provided a basis for active thought, for theorising about the world, for systematic scientific knowledge. (Sukhomlinsky, 2016, 163-164)

Later in the same chapter Sukhomlinksy writes:

> In the works of the Soviet anthropologist Professor MF Nesturkh there are some words that, in my opinion, provide a key to understanding the process of a child's intellectual development: 'Subjected, during the childhood years, to a constant flow of more and more new information, it is at this age in particular that a human being develops a growing urge to learn.'
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> The flow of information: that is the most important precondition for full intellectual development. But what happens if, for one reason or another, that flow of information weakens and is not augmented? What a child sees by himself is not a flow of information. Human education consists of elders passing their knowledge of the surrounding world on to children, constantly feeding the flow of information with the energy of their thought, bringing their influence to bear upon the child.
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> I began to study the family environment of each child, from the time of their birth up to their enrolment at school. I discovered some interesting correlations. If children are left to themselves during the preschool years and their elders do not create the flow of information essential to a normal human environment, a child's brain remains in a state of inertia. Curiosity and the thirst for knowledge fade, and indifference develops. Is it not true that a growing urge to learn provides the driving force behind thinking, and determines to a huge extent the intellectual development of a child? This does appear to be true.

> Petrik was left to himself as a child. His mother and grandfather left for work in the morning, and he was left at home alone. He was left inside a play pen under the eaves of the barn or on some grass. From time to time a neighbour looked in to make sure he was all right. That is how Petrik was 'brought up' from the age of two to the age of five. It was a vegetative kind of upbringing. The child was well fed, clothed and shod, but deprived of the most important thing: human company. From the age of five Petrik played outside with other children, mainly his own age. When he came to school he did not know the meaning of some very simple words in his native language. His indifferent eyes skimmed over the things that surrounded him and seemed like the eyes of a little old man. I concluded that the living material supporting thought—the cells of the cerebral cortex—were inert in this child, because during the most important period in the development of the nervous system, during the infancy of the brain, the boy was deprived of the natural flow of information from the surrounding world. That is why reading the Book of Nature should play a major role in this child's education. (Sukhomlinsky, 2016, 167-168.)

Sukhomlinsky clearly considered that curiosity was not just an inherent trait of all children, but an attitude of mind that needed to be developed and nurtured. The means for doing this were to expose children to fascinating natural phenomena, to encourage questioning, and to respond to all children's questions as appropriately as possible, taking into account their level of development.

Creativity

In the modern world we can anticipate that mechanical tasks will be taken over more and more by artificial intelligence and robots. The qualities that will be most valued in human beings will be 'soft skills' such as the ability to relate well to others, to solve problems, and to think and work creatively. Sukhomlinsky encouraged creativity through a multitude of extracurricular activities that were on offer in his school. He facilitated the growth of a school community where everyone was engaged in extracurricular pursuits of one kind or another, and where older children guided younger children in developing their talents. When Sukhomlinsky appointed new teachers to his school, one of the key qualities he looked for was a creative work skill that could be passed on to students (Sukhomlinsky, 1980, 50).

Teachers at Sukhomlinsky's school aimed to help all children to uncover their unique talents and develop a vocation in life. It was not enough for pupils merely to have acquired some practical skills which would enable them to find employment. They should have found joy in excelling in some area of work. Crucial to the success at Pavlysh was the very extensive extracurricular program which supplemented regular work lessons. The regular work lessons involved gardening and hand crafts in years one to four, the cultivation of experimental plots and the use of machine tools in years five to seven, and the basic principles and practice of industrial and agricultural production in years eight to ten. The further the children advanced through the school, the greater was the intellectual and experimental or inventive component of these lessons. High levels of technical competence were achieved, in large part due to the extensive extracurricular program.

Sukhomlinsky took great pride in the diversity of extracurricular activities at his school. A key feature of these clubs was the way younger children worked alongside older children and learnt from them:

> The first thing that catches the eye of a child who enters our school in grade one is the array of interesting things that all, without exception, are busy with. Each pupil has a favourite workplace, a favourite hobby, and an older friend whose work serves as a model. The overwhelming majority of pupils are not only learning something, mastering something, but passing on their acquired skills and knowledge to their friends. A person is being truly educated only when they pass their knowledge, experience and mastery on to someone else. One only begins to sense one's creative powers and abilities when one enters into moral relations with another person, becomes concerned about increasing their spiritual wealth. This is how a vocation is born and how self-education occurs. In the work process moral relations between personalities arise from the moment when one begins to see in another their own virtues, when the other person becomes as a mirror to them. It is on these moral relationships in the collective that vocational self-education is built. (Sukhomlinsky, 1980, 358-359)

The above passage captures the spirit of education through the collective, as understood by Sukhomlinsky. For Sukhomlinsky, the power of the collective lay in its ability to nurture the development of each of its members, to kindle interests, to stimulate creativity and to offer support in times of trouble. There is much in Sukhomlinsky's ideas on the educative power of the collective which is relevant to teachers in the West. The recognition that children's influence on each other rivals the influence of the teacher, together with the awareness that this influence can be very positive, opens up new possibilities for a practising teacher. One child's enthusiasm for literature, electronics or astronomy, can be a spark which kindles the interest of other children. Sukhomlinsky saw it thus:

> One of the most important objectives of our educational endeavours is to ensure that, figuratively speaking, no child's heart should remain unkindled, that all talents and abilities should fully unfold, that the most talented and gifted children should become educators—only then will they be educated themselves...
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> ... Around each talented, gifted pupil gather several youngsters—boys and girls—in love with the same pursuit—often simply interested in what the older ones are doing. The talented pupil more often than not has no thought of guiding the others, he is immersed in his work and at first does not know those who work beside him. Conscious guidance appears later. At first children and adolescents with varying degrees of preparedness for work, with varying abilities and skills, appear to come together chaotically: a year two pupil is working with a year eight pupil, a year five pupil is learning from a year ten pupil. But later this apparent chaos becomes genuinely self-directed: the children are united by their enthusiasm for the work. (Sukhomlinsky, 1980, 360-362.)

The work clubs which operated after normal classes were an integral part of the educational experience at Pavlysh, having a great influence on the general atmosphere of the school and on children's interest in and success at their studies. They also provided a key avenue for pastoral care. The diversity of extracurricular activities ensured that every child could find some activity in which they could develop their creativity.

Conclusion

In 1797 Johann Wolfgang von Goethe wrote a poem entitled *Der Zauberlehrling*, known in English as *The sorcerer's apprentice*. This poem has become part of popular culture in English speaking countries, partly through its use in Walt Disney's animated film *Fantasia*. In the poem, the sorcerer's apprentice casts a spell on a broom, to get it to carry water for him, so he will not have to perform the task himself. Unfortunately, the apprentice knows just enough magic to get the broom to cart water, but not enough to tell it to stop, and soon the house is flooded with water. Only the return of the apprentice's master, the sorcerer himself, puts a stop to the nightmare.

In some ways modern society faces a similar situation with the development of modern science and technology. We now dominate the planet, but as we have taken over more and more of the world's habitats, we have lost a great deal of biodiversity and are threatening the natural systems upon which we depend. Our enormous consumption of fossil fuels threatens us with catastrophic climate change, and the development of nuclear weapons has meant we live with the constant threat of global annihilation. As technology takes over more and more of the functions that were previously dependent on human labour, and the spirit of consumerism encourages unrestrained satisfaction of our every desire, there is a danger that as a species we will become weaker: physically, mentally and spiritually.

Sukhomlinsky, however, was an optimist. He believed we were on the threshold of a new age: the age of humanity:

> 'The age of mathematics', one hears all the time, 'the age of electronics', 'the space age'. These are all catchy phrases, but they do not reflect the real essence of what is happening in our times. The world is entering the age of humanity—that is what is important...
>
> More than ever before, we are obliged to consider what we are contributing to the human soul. I am very concerned that for the majority of students the end of secondary school marks the end of their education in the humanities. I mean the broad humanitarian education of young people—emotional and aesthetic education, the education of sensitivity and refinement, of an impressionable nature, of a responsive and sensitive heart. (Sukhomlinsky, 1987, 37.)

In order for humanity to maintain control over the technological power we have unleashed, we need to think about what we are 'contributing to the human soul', to educate future citizens who display empathy for all living creatures, who are curious, independent thinkers, and who are prepared to work hard and creatively to master the knowledge we have inherited. Sukhomlinsky is one educator who thought and toiled hard to understand these issues, and who recorded his experience so that others could learn from it. His writings still provoke reflection on many vital issues facing educators today.

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