

Abstract

A parallel of instrumentally direct thinking can be drawn between the Alberta Government's White Paper on industry and science, and the Industrial Education curriculum for schools. This reveals a philosophy which focuses on "means" to the detriment of the inherent qualitative dimensions of work and learning. An analysis of "craft" testifies to the central, creative role of the craftworker, and shows how craft in its traditional "making" sense forms an interrelated whole of means, ends, and values. On this account craft can, and in some industrialized countries does, play an important part in education, industry and the quality of life generally.

Résumé

On peut établir un parallèle entre la philosophie et les visées utilitaires du Livre blanc du gouvernement de l'Alberta sur le monde de l'industrie et des sciences et le programme d'études des arts et métiers dans les écoles. Les deux révèlent une pensée qui met l'accent sur les "moyens" au détriment des dimensions qualitatives inhérentes à l'apprentissage et au travail. L'analyse du mot "métier" fait ressortir le rôle central et créateur de l'artisan et démontre comment un métier dans son sens de "fabrication" forme un tout composé de moyens, de fins et de valeurs. Pour cette raison, un métier peut jouer, et c'est le cas dans certains pays industrialisés, un rôle important en éducation et dans l'industrie et influencer la qualité de la vie en général.

Stuart Richmond *

**THE WHITE PAPER, EDUCATION AND THE CRAFTS:
AN ASSESSMENT OF VALUES**

The thread running through this paper is the belief that the way we spend our time — our lifetime — matters, and that wherever possible the activities we engage in should have some built-in rewards as well as lead to worthwhile ends. I shall argue that the traditional crafts are valuable on account of the satisfying creative experiences they provide for initiates, and for the aesthetically esteemed objects they produce. I shall argue that the crafts have an important contribution to make to education, to industry, and to the quality of our lives as a whole.

I shall criticize the White Paper for failing to address the qualitative aspects of its proposed industrial and economic policies. Its attitude emphasizes the creation of wealth as the supreme value with little or no consideration given to the engendering of a style of life that is inherently satisfying. Furthermore, I shall claim that the policies recommended are too narrowly focused on existing industries and that the government lacks the imaginative vision and political will to create new and different industrial opportunities. In reference to education I shall criticize the overtly ideological basis of the government's policies. There are, in addition, I shall argue, significant parallels of instrumentally-oriented thinking reflected in the Alberta Industrial Education Curriculum which focuses on learning, in a fairly rigid manner, and on the techniques of industry without developing in the students the capacity to evaluate how to employ their skills in worthwhile ways,

* Faculty of Education, Simon Fraser University, Burnaby, B.C.

nor to appreciate the value of work in itself. I shall conclude that the curriculum is trivial in conception and of a low educational calibre.

More constructively, I shall pick out the main features of craft in its traditional "making" connotation in order to demonstrate its value to education, industry, and the participants themselves. I shall try to show that craft is a coherent, self-contained activity in that its means, ends, and values form an interrelated whole, and that the craftworker, above all, controls the final form of its products.

Lastly, and quite briefly, I shall suggest ways in which the government could encourage the development of craft in Alberta.

I begin with a criticism of the White Paper.

The White Paper: an assessment of its major assumptions and values

The government's policy for industry and science, as stated in the White Paper, is based on continued support for the recovery and processing of resources, including agricultural products, the development of high technology industries, and a change from basic to applied research which complements the policy proposals.¹ The basic thrust, however, emphasizes the commitment to resource-based industries, particularly those of energy.

The government notes:

The vitality of the Alberta economy has been and will continue to be the oil and gas industry.²

and

Concurrently, we must accept the reality that our basic strength and largest advantage is our fortunate storehouse of resources.³

Thus, the government places resource extraction and development, and particularly the energy industry, at the heart of its industrial policy. There is no disputing the important contribution made thus far by the energy industry, but given the fall in demand for oil, the recent drop in world oil prices, the gradual diminution of an economically recoverable supply, such imponderables as the possible discovery of a new energy source, or the drawing up of new competitive policies by OPEC, then the government's somewhat narrow range of policy commitments seems questionable — especially as so much subsidiary economic activity is stimulated by the oil industry. The proposal to expand the processing of resources and raw materials⁴ is sound, but it is tied to existing conceptions of what those industries must be, that is, petrochemicals, forest products, agricultural products. There is, however, talk from government quarters of diversifying the economy. For example, an aim of the Heritage Fund is, "To strengthen or diversify the economy and thereby place the province on a more solid footing to face future challenges."⁵ At first reading, I took this to mean that the vast wealth of the Fund is to be used to instigate new, different forms of industry, making us less vulnerable to the failure or depression of one vital industry. After all, investors spread their capital among several portfolios for just this reason. However, this is not the case, as a passage from the White Paper shows: "Diversification was intended to *broaden* our base — not artificially *change* our base. Some misunderstood this intention."⁶ Thus taken in the context of the government's goals for the past decade, diversification means the move to *process* the resources extracted by existing industries. Even in the latest policy proposals this is the conception of diversification intended by the government, apart from proposals to stimulate new high tech

industries. The government sees the problem of diversification as “. . . oriented to selecting strategies which will encourage some industries to locate here which will *complement* our existing strengths yet further diversify our economic base.”⁷ Up to a point this is a defensible posture, but not if it rules out other imaginative, if small-scale possibilities. My key complaint is that the industrial policy focuses too narrowly on what is already possible and fails to examine less obvious directions which would diversify the economy in the sense of engendering real differences and new opportunities. I shall take up this issue later in reference to the crafts.

The government wonders if it should support certain unspecified industries or take a “stand back attitude”. The problem it seems, from the government’s perspective, boils down to “picking winners and losers”.⁸ The whole idea of intervention is anathema to believers in the market economy unless it is strictly “positive”, that is, designed to “. . . improve, in part, the risk evaluation of the capital investment decision.”⁹ The setting of the problem in terms of a gamble, or race, or game, reveals the one-dimensional “law of the jungle” mentality of the government. Couldn’t some small industries be given a start because they fulfill community employment and cultural needs? A community reflects a complex interaction of human interests, yet the government picks out one Darwinian element — survival of the fittest — as the guiding light of its policy decisions. But by looking to the “profit and loss” aspect above all others, possibilities are being overlooked which could have benefits in the long term. In Sweden and the United Kingdom, for example, some small craft industries more than pay their way, exporting their goods all over the world. These industries, like the Denby pottery, in Derbyshire, England, started with no more natural advantages than we possess in Alberta, except perhaps for the will. Their products are highly desirable just because they retain the human touch. Thus, there could be sound economic grounds to intervene, do some research, find the right people, experiment a little. The government could therefore look to the long term, and do overall community needs as well as immediate financial returns when making its policy decisions.

The White Paper talks of the need to “. . . upgrade the skills of our citizens to create higher productivity, and more job satisfaction”¹⁰ The terms “upgrade”, “higher”, “satisfaction”, carry a good connotation, but unless they refer to the qualitative aspects of work, such as the need for skilled judgment, pride in workmanship, inherent satisfactions, and unless they focus on worthwhile ends the worker can believe in, then it is empty talk. It is conceivable that the change from using a traditional skill which requires worker sensitivity, to operating an electronic device, where the need for skillful human judgement is minimized, could be deemed to be an upgrading of skill, but nevertheless be accompanied by a loss of worker satisfaction. The qualitative aspects of a job refer to the worker’s role in the scheme of things, to his degree of control in the productive process, to the measure of his creative and expressive input, and to the nature of the tasks he performs undertakes. Job satisfaction springs from the intrinsic rewards of the occupation, not from how modern or advanced it is, nor from the rate of output being increased.

The White Paper argues that:

A major goal of our society is to improve the quality of life. This implies improved health, a supportive environment and a stimulating and satisfying social and cultural setting in which to live. These goals can only be achieved if Alberta has a strong economy.¹¹

In this passage the government is using the term “quality of life” as an ascription of value according to a standard it has set for what it thinks constitutes the good life. Quality of life is thus determined by the presence in our lives of certain desirable features, “improved health”, “a

supportive environment", etc., which, "can only be achieved if Alberta has a strong economy." I assume "strong" means financially rewarding. The good life thus comes about as a *result* of our economy-related activities which enable us to afford its necessities. My quarrel here is that the government fails to consider the values of the activities we must engage in to achieve these "goals". There is no evaluation of the way of life the economy inspires in respect of our work, which is seen as instrumental. If quality of life has to do with the worth of our experience, of our existence, then the desired features must be reflected in our lives as a whole. (I will not debate here the difficulties of establishing the universality of the government's "implied" goals.) Thus, what we do in our daily lives, including how we earn our living, how we strive to satisfy our material, ethical, emotional, and aesthetic priorities, cannot be immune from evaluation. The *nature* of our work contributes to the degree of satisfaction we feel for our existence, to how we rate its worthwhileness. In this regard, therefore, we would look to the intrinsic rewards of an occupation as sources of satisfaction and value. Jobs which require a degree of creative and expressive input; which call for the exercise of human judgement would thereby contribute more to a worker's quality of life than those occupations which remove and automate such functions. To contribute to improving the quality of life, the economy must satisfy, in the very industrial occupations we undertake, a broad range of human needs and not be constructed so that it is simply a means to some deferred rewards.

In the White Paper the government notes that:

Some may question the heavy emphasis on economic matters and suggest it reflects a lack of priority to social concerns. These terms are deceptive because an Industrial Strategy has as its basic objective the securing of existing jobs and the training for and encouragement of new jobs. Today this is probably the overriding "people issue" in the province.¹²

Certainly, jobs are wanted, but jobs which enhance people's lives and are not just a dull routine. Second, it is a moot point whether the private sector will, if left to its own devices, strive to increase the number of new jobs. Private companies want to get the job done for as little expense as possible. Technology is attractive because it is more efficient than humans; it limits the range of mistake-prone judgment calls. Indeed, in a variety of occupations it replaces workers altogether. Yet it is to technology and the private sector that the government looks to provide satisfying jobs in larger numbers.

It is clear, from the few comments explicitly directed at education in the White Paper that the government expects schools to put people in the "right" frame of mind to participate in their economy of the future. Note the following statements:

The mandatory program of studies in our education system should teach students about Alberta's economy, by instruction and by example. Considerations should include the model of the market economy

Education should foster ideas of risk taking,¹³

The term "mandatory" is unambiguous here. It means you have no choice — you do it. Yet what can it mean to "teach students about Alberta's economy, by instruction and example?" Do teachers explain how the economy works, as a descriptive exercise, or does "instruction and example" carry an exhortative force? Perhaps a form of junior achievement is envisaged, with marks awarded according to the amount hypothetical stock holdings increase in value. Or, the statement could imply the pointing out and analysis of situations which purportedly show the market model successfully at work. It is difficult to know exactly. Read in context, however, the

phrase has a normative implication. If education is to “foster ideas of risk taking,” then clearly, the market model is to be seen as *the* model. Such an advocacy at the classroom level, however, is questionable on grounds of a lack of objectivity. Robert Kuttner points out:

The study of who gets what and why, unlike the study of plants and planets, cannot help being an ideologically charged undertaking. Despite the laborious techniques and scientific pretensions, most brands of economics are covertly ideological.¹⁴

The difficulty for teachers, given the government’s proposals, would be to sort out fact from ideal. Kuttner remarks:

By reasoning deductively from axioms, economics confuses the normative with the descriptive. Theory stipulates *a priori*, that perfect competition is both a description of the optimal world and a useful approximation of the actual world.¹⁵

The key point here is that rather than reflecting with empirical precision the true state of affairs, the market model is rather a justification for the interests of a particular group. It rationalizes a preferred view of reality: one that sees market forces and competition working to create an equilibrium of supply and demand, wages and prices, goods and services, when outside interference is kept to a minimum. I do not know if this model accurately described the commercial world in the nineteenth century, but given the present power of the multinationals to influence governments and control markets, the capacity of the unions to maintain high wages, the need by governments to intervene in the market for reasons of national policy and the welfare of citizens, the development of economic communities and oil cartels, it plainly does not describe the true state of affairs, economically speaking, today. Local economies are much influenced by external events which upset free trade and competition equations. The “market” model does not account for these things. It takes a single-minded, perhaps simple-minded approach to economics, i.e., the balancing of economic forces through free trade and competition, for example, reconciles the wishes of the entrepreneur to freely get on with his plans with the need to protect workers and the environment from industrial poisoning, or the need to artificially create jobs when the market system fails to maintain full employment.

In philosophy of education, much attention is devoted to the conceptual requirement that ideas be presented in a morally acceptable way, so far as “education” is concerned. Specifically, this means that in an education system, we expect that students will be in a position to accept or reject propositions on the basis of the strength of evidence and the soundness of argument. Given the normative thrust of the market model, teachers would be indoctrinating if they actively sought to “foster” its premises rather than presenting objectively the pressing claims of other, if less powerfully represented, viewpoints. It has been a tradition, or at least an ideal, in our society that schools do not become instruments to disseminate ideologies, even if they happen to be those held by the government, or majority of the day.

In the White Paper, the economy is viewed as a mechanism to create jobs and wealth. This is, in part, a defensible outlook. It is, however, unmoderated by an appreciation of the value of work in itself: work which is challenging to body and mind and which offers qualitative satisfactions to the participants. The White Paper paints a picture of society living off the natural riches of the land with no consideration of other industrial possibilities, or the cultural and aesthetic benefits of more creative and expressive forms of industry. There is a repudiation of intervention which is not “positive”, that is, capital-enhancing. Yet some government leadership to investigate new, divergent possibilities, new kinds of work for people in Alberta surely can’t be “negative”. I am arguing

that there should be a shift away from the single-minded instrumental view of the economy in favour of one which goes beyond current ideologies and generates some intrinsic satisfactions in the workplace.

The Industrial Education Curriculum: a critique of its objectives and methods

I turn now to a discussion of the objectives and methods of the Industrial Education curriculum for Alberta schools which exhibits, in my view, values which emphasize a "means" oriented mentality comparable with that displayed in the White Paper. I shall argue that the curriculum focuses on challenges of a low cognitive order and minimizes the need for the students' own creative and expressive contributions, and is, therefore, of only marginal educational worth.

A key objective of the *Program of Studies for Junior High Schools* in Industrial Education reads, "To provide exploratory experiences in the use of tools, equipment and materials appropriate to various technologies prevalent in a productive society."¹⁶ The emphasis is on providing a *breadth* of experiences. For example, the junior high course requires students to study a minimum of eight modules, each requiring 20-25 hours to complete, out of a range of fifteen which cover the fields of "power technology", "materials technology", "visual communication technology", and "synthesizing".¹⁷ I shall concentrate my analysis on the junior high program since it most vividly exhibits the problems I want to discuss.

At first glance, the idea of "exploratory experiences" in a workshop setting conjures up an image of curious students investigating the properties of materials, utilizing tools to perhaps solve some constructive problem or other, and using their own ingenuity in the process. In short, "exploratory" implies a degree of openness with students finding out and completing, at least in part, tasks for themselves. Indeed, another objective reads: "To provide a technical environment for students to synthesize their accumulated knowledge in the solution of practical problems."¹⁸ These quoted objectives raise false expectations, however, because of two further considerations. One is that, in the words of the Curriculum Guide:

The product, . . . should be considered a vehicle through which instruction takes place . . . The products, however, should be predesigned and permit a measure of successful achievement for all levels of learning.¹⁹

The second consideration involves the methods of teaching. In the "Multiple Activity" approach, the workshop, or "laboratory", is arranged into areas, each of which has several components. For example, the "materials" area could have a selection from the earths, leather, metals, plastics, and woods modules. The class is divided into three or more groups who work, in rotation, at their assigned modules, some of which could be in different areas. Because of the variety of activities taking place simultaneously, each work station within an area is supplied with instruction sheets and booklets which provide a written and photographic sequence of steps for each student to follow in order to complete a standard project.²⁰ Far from allowing or constituting an "exploratory approach", the methods are designed to elicit stock responses, and pretty trivial ones at that. After all, what can an adolescent be expected to do in a few hours with the teacher flitting from station to station trying to keep many different activities in order. The Multiple Activity approach is not exploratory, nor does it enable students to "synthesize" their knowledge by solving problems. The problems are presented as solved. Products are "predesigned". The product is merely a "vehicle" for the learning of technological skills. But, a skill is a means of accomplishing something; it is necessarily directed at the end. We develop skills to achieve ends. It is therefore

important to be able to determine the ends that are worth pursuing and thus to see the means in the context of worthwhile objectives; otherwise we might slave away and produce rubbish. The Industrial Education curriculum takes away the value of the end product as a focus for the activity. The means become the end-in-view of the learning. But they are means that are cognitively adrift. They are separated from ends. Appropriately, Schumacher notes of this tendency in education to emphasize means: “. . . but ‘know how’ is nothing by itself; it is a means without an end, a mere potentiality, an unfinished sentence. ‘Know how’ is no more a culture than a piano is music.”²¹ If students have no grasp of what ends are worth striving after, the skills themselves are of limited value. In any case, the rapid turnover of technological innovations soon makes such skills outmoded, and schools cannot afford to continuously replace equipment.

The “synthesizing” area of the Industrial Education curriculum includes a “Student Contracting” module which is described as, “. . . opportunity for the student to develop greater competence in an area already explored; closed, modified and open contracts.”²² This begins to sound like an exploratory approach, particularly with the “open” contract possibility. But how realistic is it? The Multiple Activity approach, with its numerous and diverse activities, involving the use of tools, materials and assorted equipment requires that its activities be rigidly prescribed as we have seen; there are finite limits on a teacher’s time and energies, and there are safety requirements to be met. I question the degree to which student contracts can be “open” or individualized under such a system, particularly if students are permitted to work on several modules at once. I question whether students have enough of a background to proceed reasonably independently, on a project of their choice, which, if it is “open”, will require imaginative solutions and technical knowledge and skills which the limited modular approach might not have covered. Yet, if the project is within the students’ capabilities, simply drawing from their already limited knowledge and competence, what would be its educational value? No doubt resourceful teachers, interested in taking a more imaginative perspective, would find ways around the difficulties, perhaps by limiting the range of activity, and by building on existing skills. But this would go against the philosophy of the curriculum as it stands.

My chief criticism of the curriculum in its official form, is that students are not challenged to use their cognitive and expressive capabilities in any complex way. The curriculum calls for students to adhere to specified procedures. They are encouraged, for the most part, to be conscientious rule-followers.

To sum up. The White Paper sees industry and the economy in a narrow instrumental way. The goal is to create wealth. No substantive consideration is given to the rewards or satisfactions of the work inspired by such a philosophy. The policy is unimaginative and focuses on existing resource-based industries. Technology is to be developed because it is powerful as a means. It will not, however, necessarily increase job satisfaction since it tends to remove the need for unprogrammed human judgment. I have argued in favour of investigating the role that other, more creative forms of industry can play in the economy, which at the same time provide the worker with a degree of satisfaction in what he must do. The Industrial Education curriculum also focuses on means, or techniques, which in this case are deemed important because they exist in the workplace. I have argued that skills must be seen in the context of worthwhile ends. The Industrial Education curriculum, by diminishing the role of the “product,” fails to establish a framework of values by which what is worth doing can be ascertained.

It is my contention, in as much as we have the freedom to determine such things, that what we

seek to accomplish must be worthy of our efforts and the ways we devise to attain our ends must have some built-in rewards.

I shall argue that "craft" is an activity which satisfies these requirements in that it maintains an intrinsic relation of justifiable ends and means; and further, that its role in education and industry should be expanded.

Craft: its features and benefits to education and industry

Etymologically, the *Oxford English Dictionary* (Compact edition) notes of "craft", "The original meaning preserved in other languages is 'strength, force, power, virtue.' The transference to 'skill, art, skilled occupation', appears to be exclusively English." I am concerned with "craft" as it refers to a skilled occupation, especially as this involves the making of some useful or decorative object. Activities like pottery, silversmithing, cabinet making, weaving, book-binding, leathercraft, come readily to mind as crafts which involve making, using tools and concrete materials. A feature of these crafts is that the objects which may or may not have a use, are made with the intention of their being aesthetically pleasing. Nowadays craft in this 'making' sense, has an antiquated ring to it. This reflects the contrast with the automatically controlled methods of modern industry. Craftworkers are responsible for the success or failure of their work in a way the maker of tomato cans is not. First, the craftworker is responsible for the making from start to finish (although in some craft-based industries there is a division of labour). And second, a craft involves what David Pye calls "workmanship of risk,"²³ i.e., regardless of the tools or machines used, the overriding control is exercised in accord with the judgment and skill of the craftworker. An outcome of this personal, as opposed to predetermined control, is that the crafts produce objects with an unlimited range of aesthetic qualities, and an element of uniqueness which escapes modern mass-production techniques. Craft-made objects have a character, constituted of many qualities of shape, texture, colour, surface finish, and forms which reflects the sensibility and idiosyncrasy of the maker. A craft has a set of values, passed from master to apprentice, which guides the craftworker's choices and judgments. These values can be made explicit as they bear on standards of workmanship — the belief in doing one's best, in using sound methods of construction, in choosing the most appropriate type of materials for this job, are examples. However, values which shape judgments about which oak board has the best grain when several are contenders; about how to shape an edge so that the essential character of the piece as a whole is enhanced; about how to harmonize the structural elements of the piece so that a kind of inevitability of form is expressed; or indeed how to decide what is worth making: these values cannot be made fully explicit because they are derived from the craftworker's feelings or understanding for what is "right" in the practice of the craft. These values can only be acquired by observing and following the example of a master, and by firsthand experience. Thus, while these values are universal within the craft (if they are not we could not intelligibly speak, for example, of *the* craft of cabinet-making and all that is entailed in matters of procedure, style, aesthetic qualities, etc.) each craftworker must subjectively understand and interpret them in his/her own way. There can be no explicit rules to guide judgment in all situations. Each original piece exerts its own demands. Participants in a craft must find their way by trial and error to the most immediately satisfying solution; satisfying that is according to the values, and understanding they have wrung from years of disciplined effort.

In its finer moments, a craft challenges initiates and experienced workers alike to think analytically to solve structural problems use painstakingly acquired skills, knowledge, and feeling to create things which can be both useful and beautiful but whose quality of finish, and in cases of original

work the form itself, is not fully determined in advance. A craft unites ends and means in a framework of values inspired by tradition and personal interpretation which places the human being at the centre and relies on his/her capacity for sensitive judgment. It is these qualities which give craft its educational potential.

Minimally we can claim with R.S. Peters, that "education" implies "... that something worthwhile is being or has been intentionally transmitted in a morally acceptable manner."²⁴ There is, of course, more to the concept than this. Arguably, education promotes the development of mind through acquisition of certain forms of publicly defined knowledge and understanding. But in what sense is an "educational" activity worthwhile? I am going to argue that in education, as in life generally, we cannot infinitely do things for the sake of something else. We must at some point, if we care sufficiently to try to understand the purposes of our existence, if indeed we are to be in a position to determine with justification what we ought to do with our lives, find out and evaluate what underpins our instrumental activities. Given the role of developing young minds (and I include feelings in this) education must grapple with what is of ultimate value in human life, with what is worth doing in itself. Without such experience, I do not know on what other rational substantive basis we shall direct our lives. An educational activity, on this view thus has its worthwhileness built-in, to echo Peters, it needs no ulterior apology.

Brushing aside, though acknowledging in passing, claims that we do as a matter of fact include under the mantle "education" a host of utilitarian activities such as "driver education", I want to argue that craft is worthwhile educationally because its purposeful activity engages and develops cognitive and expressive abilities of a high order. There are designs to be worked out, constructive problems to be solved, methods to be extemporized, relationships of appearance and use (if useful) to be harmonized, and all this done in a way which respects and enhances the qualities of the material. Craft calls forth inventive, open, as well as tightly controlled responses, and in this regard the craft student is the creative mainspring of the enterprise. There is much to learn in terms of common knowledge, skills, and values, by which craft is marked out as a distinct activity but participants are taxed to interpret constraints for themselves and to define problems worthy of their attention as levels of competency grow. The material object, made by a craft student, reveals the knowledge and depth of understanding of the maker in a publicly accessible form. We can see what has been learned. Feelings of accomplishment go hand in hand in mastery of skill acquired by persistent and disciplined effort and the achievement of ends internal to the craft which are a pleasure to use or simply to behold. Success does not come easily in a craft, but with application it does come, and perhaps that is a lesson in itself. The characteristics I have just described are inherent in a craft — they are what make it worthwhile to initiate and give it credibility as an educational activity. In summary, *craft education* would seek to initiate students into the knowledge, understanding, skills, and values, and to some extent mysteries of a craft, which in the last analysis bring their own reward, and thus ultimately justify its pursuit. Strictly speaking, craft education at the school level, as I have described it, is not intended as job preparation though it will likely spark some career interest, particularly if the climate is favourable in the adult world of work.

Teaching methods should respect the characteristics of craft as I have distinguished it. Some aspects are amenable to direct instruction: the identification of materials and knowledge of their properties, the names and uses of machines and tools, methods of construction, a range of basic manual skills. The sensitivity and judgment needed by a craftworker, however, are not fully amenable to an explicit teaching method. Yet on this judgment a lot rests. No amount of facility

with tools will matter if they are not sensitively directed. Hopefully, and it is matter of faith, as a student matures he or she will come to appreciate through personal craft experience, and by observing competent others, the kinds of judgments that are acceptable, even if, particularly in matters of taste, rules cannot be given or applied. Students will come to grasp for themselves when formal relationships of appearance and use are "right", mainly through trial and error. The students must feel and understand these things for themselves if they are to move on to more complex challenges. If mastery is sought, and I assume the endeavour is hardly worthwhile educationally unless it is seriously entered into, then the in-depth study of one craft will be sufficiently taxing, though depending on resources others could be offered for choice. Consistent with the creative demands of a craft students should, after acquiring foundational skills and knowledge, progress from making set projects, through the making of projects prescribed in some details but left open in others, to the stage of instigating, designing, and making projects entirely independently. Levels of complexity can be determined on the basis of each student's capabilities in consultation with the teacher. In this way, craft can be a potent force educationally, for all children.

I turn now, finally, to a brief discussion of the role of craft in industry.

In some modern industrialized countries, craftworkers are encouraged by governments to participate in the economic system. In Sweden, for example, workers grouped in cooperatives receive state and municipal assistance and some are able to secure contracts to supply original designs and artifacts to multi-national companies.²⁵ Such groups also offer a variety of unique and beautiful objects to the public from visible and accessible locations. Some craftworkers have a foot in both camps. Katja Walden notes of one such person: ". . . he created unique handmade pieces but also prototypes for industry too. This well-made, beautifully proportioned, durable and functional furniture, with a feeling for handicrafts, is still on the market."²⁶ Walden also talks about workers who have set up small companies to produce high quality furniture in some quantity. But whatever the craft, there can be no doubt that the craft heritage has been influential in securing Sweden's reputation as a country of good design. In Britain too, the Denby pottery employs craft techniques to create stoneware which is well received at home and abroad. The Gordon Russell workshops in England specialize in making small quantities of good furniture for export. The firm employs two hundred people, takes on five to ten apprentices a year, and turns over £2 million of business per annum.²⁷

In Canada, a study concluded for the Alberta Art Foundation²⁸ shows that amateur and professional activity in the creating and marketing of visual arts (sculpture, painting, printmaking, photography, fibre art, pottery, ceramics, art glass, jewellery, and wood carvings) generated expenditures of \$63.6 million in Alberta in 1983, and this in spite of a lack of government policy regarding the development of the visual arts as an industry. Clearly, the crafts can and do have a significant presence in the market place, even in Alberta.

It is worth pointing out that in Sweden, where there is a well-established crafts industry, and government programmes to assist craftworkers, "handicrafts" is a compulsory subject in schools for students aged seven to sixteen, and thereafter is optional in the upper secondary schools, depending on the route chosen.²⁹ The crafts are also well-represented in Sweden's two colleges of art.³⁰

Currently in Alberta, the crafts are barely represented in schools. The junior high art programme consists of fifteen "modules" of which two, "Textile Arts", and "Ceramics and Pottery",

directly involve craft activities; although at the teacher's discretion, other craft areas could be included. The time recommended for each module is approximately ten weeks, say twenty hours.³¹ At the high school level, Art 21 and 31 are specifically craft oriented, but in each case the student is to address himself to a range of materials, that is, clay, fabrics, metal, wood, synthetics. The focus is that of a "broad involvement," although some specialization is suggested for the senior level.³² One wonders though, with such a mandate, what can be accomplished in any depth in a single craft in one semester of approximately eighty hours.

The Alberta College of Art offers a choice of craft majors: glass, ceramics, jewellery, textiles, weaving, in its four year programme. This shows a strong commitment to the crafts. If, however, they are to become more significant industrially such that they become a viable choice of work for greater numbers of people, then more emphasis is needed at the secondary school level and a hospitable climate must be engendered in the market place. I am not, of course, suggesting that craft training be instituted in schools (in an art college it is appropriate to specialize for a career); it is rather that in an enlightened atmosphere regarding the crafts, some students might wish to pursue their interests beyond the bounds of the school and make a craft their life's work.

Alberta Culture offers study, travel, project, and organization grants in the visual arts, but nothing which would help establish a worker's cooperative. Assistance is for non-profit purposes only, (see Alberta Culture Grant Application Guidelines) unlike for example, government policies which specifically aid the oil industry. (Details available from the department of Energy and National Resources, in particular the Alberta Petroleum Incentives Program). The department of Tourism and Small Business offers a range of consultative services but nothing to defray the cost of establishing a small craft industry, or help pay apprentices' wages.

In the short space left, I offer a brief dogmatic sketch of what the government can do to improve matters. After a period of investigation and assessment, establish courses in schools in those crafts there might be reasons to favour, i.e. access to natural materials, expertise, or local interest. Aim to teach one or two crafts well so that the satisfaction and confidence (and understanding) that comes from mastery can be experienced. Maintain and strengthen the craft presence in the Alberta College of Art and community colleges. Establish a funded apprenticeship system for suitably qualified candidates. Provide funding for cooperative craft facilities. Stimulate small craft ventures, particularly in rural areas where large companies are loathe to locate, but where there is interest in the community. Investigate the most suitable craft possibilities for different regions, especially where employment is scarce. Invest in on-the-spot training for local people. I cannot view this kind of government action as a "negative" intervention. It is, rather, an investment to establish a treasury of expertise which would constitute a small but genuine alternative to our resource-based industries. There might be a spin-off for tourism as Alberta becomes a more interesting place to visit. A commitment to increase craft activity would enrich the culture in Alberta as more home-grown craft artifacts come on the market. The craft way of doing things and its system of values would become more diffused into our thinking. Beliefs concerning the intrinsic qualities of work might come to be more widely appreciated. A leadership role in craft development would constitute a recognition by the government that work need not be simply an instrumental chore but can be satisfying in its own right as well. As William Morris, the nineteenth century advocate of handicrafts and workers' rights notes, "Thus worthy work carries with it the hope of pleasure in rest, the hope of pleasure in our using what it makes, and the hope of pleasure in our daily creative skill."³³ Not all will aspire to be craftworkers, it is not an easy life, but those that do will enrich

all our lives by keeping valuable traditions alive which honour the human touch and which demonstrate that creative, expressive activity can be a normal part of living.

NOTES

- ¹ Alberta.(1984). *White Paper: Proposals for an industrial and science strategy for Albertans: 1985-1990*, 56-59.
- ² Ibid., 16.
- ³ Ibid., 41.
- ⁴ Ibid., 58.
- ⁵ Alberta. Alberta Treasury. (1984). *Alberta Heritage Savings Trust Fund Annual Report 1983-84*, 7.
- ⁶ Alberta. *White Paper*, 29.
- ⁷ Alberta. *White Paper*, 39.
- ⁸ Alberta. *White Paper*, 43.
- ⁹ Alberta. *White Paper*, 39.
- ¹⁰ Alberta. *White Paper*, 30.
- ¹¹ Alberta. *White Paper*, 94.
- ¹² Alberta. *White Paper*, 69.
- ¹³ Alberta. *White Paper*, 67.
- ¹⁴ Kuttner, Robert. (1985, February). The poverty of economics. *Atlantic*, 83.
- ¹⁵ Ibid., 76.
- ¹⁶ Alberta. Alberta Education. (1978). *Industrial education: Program of Studies for Junior High Schools*. (Revised 1982), 114.
- ¹⁷ Ibid., 116.
- ¹⁸ Ibid., 115.
- ¹⁹ Alberta. Alberta Education. (1976). *Junior High School Industrial Education, (Curriculum Guide)*, 5.
- ²⁰ For more information consult Alberta Education. (1976). *Junior High School Industrial Education, (Curriculum Guide)*, 3-8.
- ²¹ Schumacher, E.F. (1974). *Small is beautiful*. London: Abacus, 66.
- ²² Alberta Education. *Program of Studies for Junior High Schools*, 118.
- ²³ Pye, David. (1968). *The nature and art of workmanship*. Cambridge University Press, 4.
- ²⁴ Peters, R.S. (1966). *Ethics and education*. London: George Allen and Unwin Ltd., 25.
- ²⁵ Wickman, Kerstin. (1977). Work situations and social commitment. In Lindkvist, Lennart. (Ed.). *Design in Sweden*. Malmo: The Swedish Institute, 137-151.
- ²⁶ Walden, Katja. (1977). Furniture. In Lindkvist, Lennart. (Ed.). *Design in Sweden*. Malmo: The Swedish Institute, 81.
- ²⁷ Walker, Christine. (1979, December). Four hands dab at design management. *Design (U.K.)*, 35-43.

- ²⁸ Alberta Art Foundation. (1983). *Art as industry*. Excerpts from a preliminary study prepared by the Management Advisory Institute, University of Alberta for Alberta Economic Development on behalf of the Alberta Art Foundation.
- ²⁹ The Swedish Institute. (1984). Primary and secondary education in Sweden. *Fact Sheets on Sweden*. Stockholm: The Swedish Institute.
- ³⁰ Wickman, Kerstin. (1977). The Design schools. In Lindkvist, Lennart. (Ed.). *Design in Sweden*. Malmö: The Swedish Institute, 125-136.
- ³¹ Alberta. Alberta Education. (1978). Art. In *Program of Studies for Junior High Schools*, 84-86.
- ³² Alberta. Alberta Education. (1978). Art. In *Program of Studies for Senior High Schools*, 3-9.
- ³³ Morris, William. (1984). Useful work versus useless toil. In Briggs, Asa. (Ed.). *William Morris, News From Nowhere and Selected Writings and Designs*. Middlesex: Penguin Books Ltd., 119.