

***Fides et Ratio*: a critical appreciation**

Book review: *Faith and Reason: Evangelical letter Fides et Ratio* of the supreme pontiff John Paul II to the bishops of the Catholic Church on the relation between faith and reason, 1998, Libreria Editrice Vaticana/Veritas, Dublin.

THE CONTEXT

A fascination with technology is a fascination with truth. Hydroinformatics, as a technology that draws upon other technologies and so as a technology of technologies, is grounded in the seeking after truth in the domain of the waters of the world, the arteries and veins of the biosphere. It is only one, but still one, of the many, many ways of seeking after truth that give us hope, cohesion and guidance as seekers after truth in this otherwise so-troubled world. Among all seekers after truth, however, some are more aware of the object of their quest than others and are more directly concerned with arriving at its sources, or its origins. They are therefore concerned not only with knowledge, as that which bears or contains truth, but also with wisdom, which is the arbiter and organiser of knowledge, and so the source of truth. All such searching and striving are borne by that covenant of the spirit that we call 'love', and the most profound of these movements is the love of wisdom itself. For well over 2,000 years now it has been normal within the so-called Western tradition to distinguish between a love of wisdom translated into works without the explicit supposition of any agent external to mankind itself, and so by reason alone, which is called *philosophy*, and a love of truth as the issue of a wisdom that includes but also necessarily transcends the powers of unaided human reason, which is called *theology*. Thus philosophy requires human understanding, as mediated by reason, while theology requires not only this human understanding but also something more again, which is called 'faith'. Thus faith is that which surpasses human understanding, which transcends reason, so that 'faith is a miracle, otherwise it is not faith'.

Every culture appoints some persons as the repositories and the transmitters of wisdom, whether as Shaman, Buddhist monk or Hindu sage, but in the Christian tradition this task is mainly appropriated by a social institution, called in general terms the Church with an upper-case 'C'. By its very act of appropriation this institution cannot form one unity, but must be divided into many institutionally separate churches, and so spelt with a lower-case 'c'. Among these churches is one that claims the longest line of doctrinal descent and the greatest number of adherents, and which has at its head one who is widely considered within its community as infallible. This head is currently John Paul II and, since his seat is in Rome, we often refer to this church as the Roman church. The document that we have before us carries the seal of John Paul II and deals with the relation between faith and reason, *Fides et Ratio*, as the twin instruments of truth. It must therefore be of the greatest interest to those who, having a fascination with technology, have a fascination with truth. What, then, has *Fides et Ratio* to say to us, not only generally as technologists but specifically as hydroinformaticians?

THE PROBLEM

Within the specific context of hydroinformatics, the principal question that is posed here may be stated in its most practical terms as follows: why should the hydroinformatician behave in an ethical manner rather than an unethical one? And beyond that again: why should this person behave morally rather than amorally, or even immorally?

This is a question that may arise already when the hydroinformatician works only on the technical side of the subject, such as, for example, when he or she is called upon to analyse, design and construct devices and systems that are rather obviously unworkable or unusable or potentially misleading or otherwise undesirable. One well-known response, originating from the ‘theatre of the absurd’ from Samuel Beckett, that ‘if a thing is not worth doing, it is worth doing badly’, is rather obviously de-moralising. To do the job as best one can, ‘to make the best of a bad job’, may appear as a preferable option, but this will always be to some extent a waste of natural abilities and education, while the subsequent lack of success of the issue of the work will contribute nothing to the future opportunities of the hydroinformatician involved. Moreover, to the extent that the failure cannot be explained away to other causes, the hydroinformatician is rather sure to be the first in line in the apportioning of blame. Much more to the point, however, is that the hydroinformatician should always be ready, in the words of the *Letter*, ‘to grasp the opportunities of the historical moment’ and not to lose his or her time and so drift out of touch with the possibilities of the times. *Tempus fugit irreperabile*: the *Letter* teaches us that the ethical alternative of looking for something more useful is the right course, even though it is likely to lead to unpleasantness, inconvenience and the prospect of a loss of job opportunities within the organisation concerned. The ethical course of action is clear, but by no means an easy one.

This question becomes ever more pressing, ever more cogent, the more that we hydroinformaticians move over onto the sociotechnical side of our subject. This is mainly because our problems as hydroinformaticians then become increasingly problems of values, and then not only and even not so much our own personal values as those of other persons who come to participate in our constructions. Our own values then count only to the extent that they admit the validity of other values than our own, and so only to the extent that they lead us to provide the means for these other values to come to expression, and so to count. But to do this in a responsible way we have to design environments that allow the values of individual persons and groups of persons to come truly to presence,

and not to become confused, smothered and covered over by *Gerede*, by ‘gossip, chatter and idle talk’.

One further and immediate consequence of this is that we can rarely be satisfied with mere consensus. It is one of the most uncongenial defining traits of the postmodern condition that whatever happens to be believed by the majority at any one time, so that it is held to be ‘true by consensus’, becomes identified with ‘the truth’ (e.g., Lyotard 1973//1984). Thus, for example, any number of organisations nowadays ‘build consensus’ as a means of ‘generating commitment’, thus getting their employees to ‘feel committed’. Such methods are often described euphemistically as ‘operational’ or even as ‘pragmatic’. In many cases this is so obviously insincere that it breeds its own cynicism and demoralisation, and certainly history is replete with examples of the catastrophic consequences of ‘following the consensus of opinion’ as though it were synonymous with truth. Consensus has its own place, of course, but it cannot be defining of truth. In the words of the *Encyclical Letter* (§56):

In brief there are signs of a widespread distrust of universal and absolute statements, especially among those who think that truth is born of consensus and not of a consonance between intellect and objective reality.

As hydroinformaticians we might say, entirely consentaneously, that we are not aiming so much at a consensus between persons when we introduce our sociotechnical systems, but something much more again, which is a consonance between the intellectually mediated judgments of these persons and objective reality.

There are several practical consequences of this position. The necessity of accommodating private work spaces for the participating persons in the design of our judgment engines and for providing these with the productions of authentic fact engines is one immediate consequence. In the same vein, the call to accommodate objective reality is a call to incorporate all that we know and can possibly know in the productions of our fact engines. Thus, for example, although we may use subsymbolic devices such as artificial neural networks to replicate the productions of our numerical models, data networks, data assimilation procedures and similar techniques, this cannot be a replacement but only a displacement within the one or the other working context, introduced only for the purpose of

convenience. Similarly, the hydroinformatician will not be content with merely 'operational', so-called 'black-box', models and methodologies, typically of the input-output transformation type, but will always be trying to distil deeper physical meaning and thus a deeper sense of reality, and even from the productions of the 'black box' models themselves.

THE QUESTION CONCERNING MORAL AND ETHICAL BEHAVIOUR

The question concerning personal morality can be expressed generally in the following terms: How far is the person prepared to go in his or her seeking after truth? This question can in turn only be posed from within a tradition, this being normally the tradition within which the person concerned has grown up and matured. Because the process of growing up and maturing is so much associated with the acquisition of truth and the long-traditional fount of truth within societies, its wisdom-learning, has been associated with its nexus of religious beliefs, it is common to associate a tradition with a specific social religion or sect within a social religion. Thus it is usual to speak of a Buddhist tradition, a Christian tradition or an Islamic tradition in general terms, or a Brahmaic tradition or a Quaker tradition in more special terms. The assumption that is made in this denotation is that, although the persons concerned may or may not consciously subscribe to the social religion itself, they nevertheless, more or less unconsciously, abide by its truths as expressed in its precepts and practices. The basic notion is that the persons and institutions of the social-religion constitute a centre of wisdom learning which may be visible and acceptable to some persons within the tradition and invisible and unacceptable to others. The question concerning morality thus tends to be posed in terms of how far the morally developing individual is prepared to go in approaching this centre in his or her seeking after truth.

This is a question that poses itself with a particular urgency and cogency as a society passes, or 'drifts', into a postmodern condition, in which knowledge, and with this truth, increasingly takes on the attributes of a commodity, so that truth itself appears to be reduced to a matter of

consensus, becoming increasingly further separated from reality, and increasingly subject to every momentary caprice of 'the market'. As one of the earliest and most incisive of thinkers about postmodernism, Baudrillard (1963) observed the sequence of changes that commonly (but not necessarily) occur between representation and reality as a society passes into a postmodern condition. Initially, the representation truly represents what it purports to represent, but it comes by degrees instead to mask and pervert reality, so that its communicating signs take on the defining attributes ascribed to them by Umberto Eco (1976) as 'the means employed in order better to lie'. At a third stage the representation serves only to mask its increasing loss of contact with reality, while in the fourth and final stage the representation bears no relation to any reality at all, so that it has nothing to do with truth. (See also Abbott (1999) partly following Norris (1993) on how this proceeds in advertising, the performing arts and politics, and how it accordingly penetrates into the areas traditionally occupied by science and technology.) In the words of the *Encyclical Letter* (5):

A legitimate pluralism of positions has yielded to an undifferentiated pluralism, based on the assumption that all positions are equally valid, which is one of today's most widespread symptoms of the lack of confidence in truth . . . On this understanding, everything is reduced to opinion; and there is a sense of being adrift.

The effect of this movement towards meaningless representation and vapid 'opinions' is to divert and demoralise the person who seeks after truth, and thus to undermine the moral development of that person. It is in fact the careful and circumspective observation of this movement that has necessitated the writing of *Fides et Ratio* (§26):

At first sight, personal existence may seem completely meaningless. It is not necessary to turn to the philosophers of the absurd or to the provocative questionings found in the Book of Job in order to have doubts about life's meaning. The daily experience of suffering—in one's own life and in the life of others—and the array of facts which seem inexplicable to reason are enough to ensure that a question as dramatic as the question of meaning cannot be avoided.

Fides et Ratio is the response of the Roman church to the difficulties that are increasingly confronting the seeker

after truth in our present-day societies. It is a reaching-out on the part of the Roman church on behalf of the Christian Church as a whole towards these seekers after truth, as a means of guiding their steps according to the tradition of the Christian Church. Thus (§86):

I wish to reaffirm strongly the conviction that the human being can come to a unified and organic vision of knowledge. This is one of the tasks which Christian thought will have to take up through the next millennium of the Christian era. The segmentation of knowledge, with its splintered approach to truth and consequent fragmentation of meaning, keeps people today from coming to an interior unity. How could the Church not be concerned by this? It is the Gospel which imposes this sapiential task directly upon her Pastors, and they cannot shrink from their duty to undertake it.

...

In the present situation, therefore, it is most significant that some philosophers are promoting a recovery of the determining role of this tradition for a right approach to knowledge. The appeal to tradition is not a mere remembrance of the past; it involves rather the recognition of a cultural heritage which belongs to all of humanity. Indeed it may be said that it is we who belong to the tradition and that it is not ours to dispose of it at will. Precisely by being rooted in the tradition will we be able today to develop for the future an original, new and constructive mode of thinking. This same appeal is all the more valid for theology.

Thus *Fides et Ratio* is the contribution of the Roman church, given freely and gratuitously in the Christian tradition, that is directed to opposing and overcoming those nihilistic tendencies in the postmodern condition that are so demoralising to the individual, and so to society generally. This contribution is thus of central importance to the promotion of searches for truth without which a subject like hydroinformatics, like any other subject that reflects the postmodern condition, must founder.

The last question that must arise of this point is then that of the suitability of this work for those who are not regularly situated within the Christian tradition. For those who have been placed within this tradition by accident of birth, but who have little consciousness of its essential theistic element—atheists, eclectics, pragmatists, acolytes of scientism generally, adherents of all manner of esotericism, devotees of new religions and sects and everything else of this kind that flourishes so rampantly in a society where ‘anything goes’—this work may well appear as irrelevant, difficult, theoretical and even inaccessible. At best

it will be experienced as disturbing and uncomfortable. And yet, those who seek after truth will still find themselves drawn into it, despite the feelings of disturbance, discomfort and possibly embarrassment that its reading may engender. It is this element of how far the reader is prepared to go in seeking after truth, that must dominate the value of its reading. Thus, for example, for those involved in the current revival of Islamic tradition it is almost sure to be of particular value as an additional and powerful source of inspiration and strength. In the same vein, for Buddhists confronted with the demoralisation caused by an imported or imposed nihilism, it should provide a sincere expression of spiritual solidarity and thus a source of renewed hope and fortitude.

SOME CRITICAL COMMENTS

These examples alone may serve to illustrate the manner in which the thought of the *Encyclical Letter* may be of such inestimable value to us. Whatever one may think or not think of the Roman church as such, this *Letter* is illuminated by many valuable insights and an exceptional overall clarity of vision. It may consequently seem almost churlish and ungrateful to criticise it, and yet here again we are obliged to do so in the best of our abilities as a part of our own seeking after truth. Thus we are obliged to observe that some of it is sure to be offensive to those of other persuasions or of none, whereas some parts may appear as gratuitously condescending, especially in a work that is nominally addressed to the Pontiff’s ‘venerable brother bishops’. Is it really necessary, for example (§11) to ‘restate forcibly that “in Christianity time has a fundamental importance”’, so that ‘... Revelation is immersed in time and history’, even if only to re-emphasise the very valid point that (§6) ‘on the threshold of the third millennium of the Christian era, humanity may come to a clearer sense of the great resources with which it has been endowed and may commit itself with renewed courage to implement the plan of salvation of which its history is part’? Here, as elsewhere, one is struck by the insularity of the thinking. The historicity of the Testaments and the consequences of this historicity have been greatly illuminated by such authors as Barth and Bultmann on the

Christian side and Levinas and, very specifically, Buber on the Judaic side. It should not need emphasising to ‘brother bishops’.

Similarly, in terms of the neglect of sources, although (§76) the name of Kierkegaard makes its appearance (his one-time betrothed always said that he would ‘finish up as a Jesuit!’) while the mention of ‘the radical metaphysical question, “Why is there something rather than nothing?”’ points indelibly to an otherwise unnameable Heidegger, there is no mention even of such Catholic authors as Gabriel Marcel and Teilhard de Chardin who have made some of the most important contributions of all in the areas that are covered in the *Letter* and which are of the greatest concern to the hydroinformatician working in the sociotechnical side of the subject. This *Encyclical Letter* is thus quite one-sidedly incomplete in some places even in terms of the intellectual resources upon which it draws: it is, to invert a common turn of phrase, ‘Roman but not catholic’.

Even in terms of its own declared objective, as a pronouncement on the relation between philosophy and theology, this one-sidedness is strikingly expressed in the totally uncritical appraisal—a veritable eulogy—of the contributions of Thomas Aquinas in this area. Now although Thomas Aquinas did many wonderful things and we are everlastingly grateful to him for these, he produced much that was grossly misguided as well. (For example, Karl Barth clearly demonstrated how his angelology was every bit as ill-founded as was Luther’s demonology.) We may even discern something thoughtless about this uncritical attitude towards sources, for although (§24) ‘liberation theology’ is swept to one side, as something ‘Marxist’, Thomas’s doctrine of ‘The Goods of the Earth’ often serves to underpin ‘liberation theology’ within the Christian Church, just as much as do similar doctrines in Buddhism and Hinduism. Because such doctrines have the most immediate and profound consequences for the drafting of laws concerning water rights, from the level of a constitution down to the level of the books of common law, they influence the whole context within which the hydroinformatician has to work, so that the hydroinformatician is obliged in turn to influence this context (Thein and Abbott 1998). Hydroinformatics has not yet begun to investigate the ways in which it can contribute, if at all, to the

realisation of the aspirations of ‘liberation theology’, but it would appear that it is a subject ideally suited to a doctoral study at a Catholic university. It is at this point in the uncritical adulation of the work of Thomas Aquinas that the *Encyclical Letter* may in fact begin to deconstruct itself.

These lacunae are unfortunate but local and not critical. There is, however, one omission that must appear to be totally inadmissible, and not least to hydroinformaticians: the world of nature is scarcely mentioned at all! Moreover, there is nothing at all accidental in this, for it appears as something systemic in the thinking of the church of Rome. Although this *Encyclical Letter* refers constantly to ‘the Church’ with an upper-case ‘C’, and in most cases this is reasonably justified, in this particular instance it is almost totally unrepresentative of the Christian Church as a whole, including many practising Catholics. This position of the Roman church, which is tantamount to the rejection of the rights of the world of nature, has never ceased to bring down the obloquy and indeed the wrath and ire of the other Christian churches. Thus from the side of a bishop of the Roman church (quoted in Skriver 1967, p.20):

Animals have no soul and know of no life after death. Therefore, they have no dignity (*Würde*) upon which they could base any rights. And in fact, animals have no rights.

Skriver then replied from the side of the Lutheran church:

This is a charter for all greater or lesser animal murderers; this is not the long overdue confession to two thousand years of treachery; this is the very establishment and perpetuation of treachery!

... This case is no singular one, but is representative of the loss of spirituality of the [Roman] church in these matters.

There can be no rights without responsibilities and the hydroinformatician cannot be concerned only with rights but must also be largely concerned with the corresponding responsibilities. The hydroinformatician represents and helps to fulfil the responsibilities of mankind not only to itself but also and inseparably to the natural world of the waters and all that this world contains. In this sense, *Homo hydroinformaticus* has been around since humanity began, whether guiding the migration of its tribes and creatures, or directing the watering and draining of the

fields of its farmers, or guiding the water supply and drainage facilities of its urban settlements, or in any number of other ways. All that has changed in our own time is that the informational and related means with which mankind has been provided have increased so immensely in so short a space of time, and then precisely in order to meet the challenges that confront humanity, which have increased just as immensely also. This eschatology of man and nature has such profound and obvious philosophical and theological implications that it cannot fail to figure large in any discussion of the relation between these two forms of organisations of knowledge. The *Encyclical Letter* attests (§85) that 'the human being can come to a unified and organised vision of knowledge' and endorses 'the recognition of a cultural heritage that belongs to all of humanity', but in this respect it does not live by its own letter. We have to recall that the Roman church canonised as a fount of goodness and wisdom not only Thomas Aquinas but also Francis of Assisi. Has it forgotten that?

CONCLUSION

A hydroinformatics that promotes the interests of mankind over and above the interests of nature is just as unacceptable as one that promotes the interests of nature over and above those of mankind. These interests are inseparable and inviolable in their unity. This is not only a philosophical position, but also and even principally a theological position. No discussion of the relations between faith and reason can properly ignore it. This is our principal criticism of the pronouncements of *Fides et Ratio*. But, this having now been said, the *Encyclical Letter* of John Paul II remains a valuable contribution, and in its main thrust an invaluable contribution, to the development of our subject. Through it we as hydroinformaticians can learn much about ourselves, our tasks and our opportunities. In particular, as is explained in the first issue of this *Journal*, hydroinformatics is a postmodern technology, being both a consequence of and a response to the postmodern condition of so much of present-day society. The comments of the *Letter* on postmodernity in

general serve therefore as comments on hydroinformatics in particular (§91):

Our age has been termed by some thinkers the age of 'postmodernity'. Often used in very different contexts, the term designates the emergence of a complex of new factors which, widespread and powerful as they are, have shown themselves able to produce important and lasting changes. The term was first used with reference to aesthetic, social and technological phenomena. It was then transposed into the philosophical field, but has remained somewhat ambiguous, both because judgement on what is called 'postmodern' is sometimes positive and sometimes negative, and because there is as yet no consensus on the delicate question of the demarcation of the different historical periods. One thing is however certain: the currents of thought which claim to be postmodern merit appropriate attention.

We concur completely in this appraisal as it applies to our own subject.

Summa summarum, even with our necessary reservations we must be greatly indebted to this contribution, which is just as much a contribution to our own subject as it must be to many others. It is most apposite and timely and should be studied carefully.

REFERENCES

- Abbott, M. B. 1999 Forchheimer and Schoklitsch, a postmodern retrospection. In *Seminar on Forchheimer and Schoklitsch, Proceedings of the 28th IAHR Congress, Graz, Austria* (ed. W. Graf).
- Baudrillard, J. 1963 *Le Système des Objets: la Consommation des Signes*. Gallimard, Paris.
- Eco, U. 1976 *A Theory of Semiotics*, Indiana University, Bloomington, USA.
- Lytotard, J.-F. 1973 *La Condition Postmoderne: Rapport sur le Savoir*. Minuit, Paris//1984 *The Postmodern Condition, a Report on Knowledge*. Manchester University Press, UK.
- Norris, C. 1993 *The Truth about Postmodernism*. Blackwell, Oxford.
- Skriver, C. A. 1967 *Der Verrat der Kirchen an den Tieren*. Starzewski, Munich.
- Thein, K. N. N. & Abbott, M. B. 1998 Internet-based management of water resources for a new Burma. In *Hydroinformatics '98* (ed. V. M. Babovic & L. C. Larsen), pp. 957–963. Balkema, Rotterdam.

Michael B. Abbott