MEMORANDUM/NOTE DE SERVICE

TO/À: John Hardie via Kerry Broadbent
FROM/DE: Renald Lafond/Z. Szpakowska
SUBJECT/OBJET: Project Completion Report: International Ferrocement Information Centre (IFIC), Centre Files: 3-P-76-0145 and 3-P-80-0095

DATE: 20 February 1985

History of Project

Originally established in 1959, the Asian Institute of Technology (AIT), was chartered in 1967 as an independent, international and non-profit making post-graduate technological institute offering advanced education in engineering, applied sciences and allied fields. The Library at AIT was also established in 1959 in support of the various teaching and research programs carried out by the Institute.

In recognition of AIT's mandate to provide research, training and information in the applied sciences and technology, a resolution was passed by the National Societies of Soil Mechanics and Foundation Engineers in Asia in 1971 asking that AIT "arrange the exchange of information on major soil engineering research and projects being carried out in different countries of the Asian region." In 1972, the IDRC Board approved a grant of 53,630 CAD to AIT to enable the establishment of an Asian Information Centre for Soil Engineering as an administrative unit of its Library (3-P-72-0046) and Supplementary grants of 44,300 CAD and 19,360 CAD were made in January 1975 and November 1971 respectively.

In 1973, the U.S. National Academy of Sciences' Advisory Committee on Technological Innovation (ACTI) identified ferrocement as an overlooked, labor intensive, intermediate technology material with wide potential especially for application in the rural areas of developing countries. In response to this recommendation, a formal request that a Ferrocement Information Centre be established in New Zealand was presented and rejected by IDRC in 1974, mainly because of its location. An informal proposal by AIT to establish such a Centre in Bangkok was also turned down by IDRC in 1975 mainly due to financial constraints. AIT sought other funding and in October 1976, with financial support from USAID and the Government of New Zealand, the International Ferrocement Information Centre (IFIC) was founded under the joint sponsorship of AIT's Structural Engineering Division and its Library and Regional Documentation Centre.
AIT then sought more modest funding from IDRC to improve the level of activity already made possible by the other two donors. This grant of $45,700 was approved by the IDRC Board in March 1977 (3-P-76-0145). A second phase, $39,941, was approved by the IDRC Board in October 1980 to enable IFIC to expand and implement its achievements in the first phase (3-P-80-0095).

In March 1977, in a move to ensure the efficient and economical operation of its information centres (IFIC, AGE, ENSIC, RERIC), AIT established a Library and Regional Documentation Centre (LRDC) to administer all the specialized information units and to provide information and documentation services to AIT and other users in Asia. A grant of 237,950 CAD was approved by the Board of Governors in October 1984 to optimize the substantial investment made over the years to IFIC and AGE (3-P-84-0147).

**Project Objectives**

The global objective of IFIC is to offer information services on ferrocement geared towards the needs of developing countries and to become self-supporting with this activity.

The specific objectives of the first phase of the project were:
1) to write simple monographs on the practical applications of ferrocement;
2) to compile state-of-the-art reviews, abstracts, bulletins and other publications on ferrocement;
3) to provide a document copying service; and
4) to provide a question-and-answer service; all geared towards an audience of designers, developers and technical experts in those fields of construction requiring ferrocement.

The specific objectives of the second phase were based on the achievements of the first one. That is
1) to continue publication of the Journal of Ferrocement and to publish special issues dealing with particular aspects of ferrocement applications;
2) to maintain a database of ferrocement publications and to provide copies of these on request;
3) to publish more pamphlets of the "do-it-yourself" kind (initiated in the first phase);
4) to produce slide presentations of ferrocement technology for use by extension workers in rural areas;
5) to further develop cooperation with other centres and professional organizations; and
6) to attain self-sufficiency via journal subscriptions and fees for services rendered.

Most of these specific objectives are oriented toward the preparation of information products and are integral parts of the global objective which is to provide an information service that meets the users' needs in developing countries.

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Project Progress

Some reporting problems were experienced during the initial grant to IFIC - these were mainly due to the difficulties in separately reporting expenditures of grants received from USAID, the Government of New Zealand, IDRC and AIT's own contribution. However, this problem was shortly ironed out.

Half way through the first phase, AIT found that it could not rely upon the part-time unpaid services of its own professional staff and requested a supplemental grant almost as big as the original grant. This matter went as far as the IDRC Board, however, the solution adopted was to absorb the Regional Documentation Centre into AIT's core budget, leaving very little in each information centre to be covered by extra-cost funding. This move clearly demonstrated AIT's commitment to the ongoing operation of its information centres.

In addition to the funding granted by USAID (only in the first phase), the Government of New Zealand and IDRC, IFIC generated some income from subscriptions to the Journal, photoduplication and other services and from special grants (a total of 51,155 USD in the second phase, more than 32,000 USD in the first phase) which was applied against IFIC's operating costs.

Besides the initial problems reported, both phases of the project went according to schedules and budgets.

Project Results

The Project clearly met most of its objectives over the course of the two phases.

The main outputs were:

1) Simple monographs or "Do-it-yourself" Booklets. Six of these booklets have appeared: Ferrocement Grain Storage Bin (Phase I); Ferrocement Water Tank; Ferrocement Biogas Holder; Ferrocement Canoe; Biogas Digester: the Traditional and the Alternatives; and Ferrocement Roofing Element.

2) State-of-the-Art reviews, etc. "Ferrocement," a state-of-the-art review, first published in 1978 and offered at a reasonable cost (15 USD), has become established as a textbook for courses on ferrocement technology. In 1981, an Agreement was signed between IFIC and the Instituto Mexicano del Cemento y del Concreto for the publication of a Spanish version of this text. An agreement was also made to translate the book into French by GRET in Paris. IFIC receives royalties from these translations.
The "Journal of Ferrocement" published since 1977 was sent, in 1983, to 345 subscribers in 63 countries. 52% of the subscribers are from developing countries and the fact that nearly half of the subscriptions are from Europe and America demonstrate its quality. Five special issues of the journal were prepared: Ferrocement Marine Applications (1980); Ferrocement Housing Applications (1981); Ferrocement Agricultural Applications (1982); Prefabricated Ferrocement Housing (1983); and Ferrocement Water Resources Structures (1984); although not all had been published by the completion of the project. Other publications included a state-of-the-art and a bibliography on ferrocement applications.

3) Database. IFIC maintains a computerized database which contained over 1,300 entries at the end of the second phase. It is being used to provide custom searches for specific information requests.

4) Slide Presentation. Three sets of these were prepared: Ferrocement Water Tank; An Introduction to Ferrocement; and Ferrocement: A technology for housing. These slides are being used as training material and for the extension service.

5) Document copying service. IFIC provides upon request, photocopies of documents and other publications which are cited in the literature. The number of requests for such documents averages more than 300 per year.

6) Question-and-Answer Service. In addition to document delivery requests, IFIC also receives requests for information on ferrocement and ferrocement products. Such requests are received normally in the form of letters describing a specific information problem. Depending upon the nature of the request, answers consist of relevant documents and/or informative commentaries from specialists.

The number of information requests has grown from 17 in the first year to an average of 73 in recent years. The number of requests is not large in absolute terms but considering that IFIC is a rather new and relatively unknown service covering a very narrow subject field, it indicates a real interest for information on ferrocement. In comparison, the Industrial Inquiry Service of UNIDO, a similar question-and-answer service, established over 10 years ago to cover all industrial sectors receives an annual average of 1,000 requests.

IFIC has made a strong effort to promote its services, particularly by its participation at international conferences such as the International Ferrocement Symposium held in Bergamo, Italy, the Technology for the People Fairs held in Geneva and Mexico and the Madras Conference. IFIC has also participated in and organized several short training courses. In addition, the introductory brochure "Focus" has been translated into 14 languages and widely distributed. Promotion of IFIC was completed by advertisement and announcements in various journals.
IFIC generated enough income to cover half of its operating expenses through journal subscriptions, publication sales and user fees. Although one of the projects' objectives was to achieve self-sufficiency through such sales, increasing its prices would mean that many developing country users would no longer be able to afford its services, and this would go against IFIC's mandate. As well, IFIC branched out into several new activities including training which at least temporarily has increased their operating costs.

IFIC's target audience consists of designers, developers and technical experts in all fields of construction requiring ferrocement. It is interesting to note that, although 400 - 500 copies of the special issues of the Journal and the Do-it-Yourself publications were distributed, only 240 copies of the bibliography on ferrocement were sold. This seems to indicate a preference for "packaged" information over bibliographies on the part of IFIC users and reinforces the importance IFIC has placed on "packaged information" as its most important product.

A small marketing mistake made by IFIC, that of printing far too many copies of a feasibility study based on rural Indonesia, once again points to the fact that IFIC users look for "packaged information" for specific purposes and 180 copies were finally sold.

On an overall basis, IFIC fully met its expectations and its dynamic nature and the quality of its services make it a centre of excellence deserving further assistance.

**Impact and Usefulness of the Project**

An evaluation study of IFIC and other specialized information centres of AIT (ENSIC, RERIC and AGE) was completed in August 1983 by R. Thiagarajan, Director (ISD), Department of Science and Technology, Government of India, New Delhi, at the request of the Office of Planning and Evaluation of IDRC. The report is rather weak and although very positive comments are made, they are often phrased in a negative manner with very little analysis of the data presented. For instance, the report states that do-it-yourself publication sales hardly reached the 50% mark. However, the distribution of 400 to 500 of these is already an excellent achievement. These booklets are still available and, even if published four or five years ago, are still useful and can still provide answers to specific questions.

It is rather difficult to measure the impact of specialized information centres on the basis of income and expenses. This type of organization is rarely profit-making even in developed countries. Furthermore, in order to provide services to developing countries and to small local entrepreneurs, the publication and service costs must be kept as low as possible. In addition, information products are difficult to sell and it normally take several years to establish themselves on the market and to prove that information is a product worth buying.
IFIC's real impact has to be measured by the quality of its products and services and by its international reputation in the field of ferrocement applications. There is no doubt concerning the quality of its publications. They are excellent and are conceived to reach a well-defined audience.

IFIC is still building international recognition. In fact, the Second International Symposium on Ferrocement will be held on its home ground at AIT in Bangkok in 1985 and this should bring a lot of recognition to IFIC.

The high quality of IFIC's services can perhaps be best represented by the quality of the answers provided by their question-and-answer service. For example, a detailed request for information on the use of ferrocement for lining wells was forwarded to IDRC from CARE in Liberia, as well as to the UNIDO Industrial Inquiry Service. This request, in turn, was forwarded to IFIC by both IDRC and UNIDO. Less than three weeks after receipt of the letter by IFIC, a very detailed answer was provided with comments, diagrams and suggestions from three IFIC consultants. This answer was provided free-of-charge and was, no doubt, of real help to CARE - LIBERIA.

IFIC is an "information centre" at-large. In addition to purely bibliographic work such as document delivery, IFIC has expanded its activities in an integrated manner to also include the packaging of information such as the do-it-yourself type of publications, as well as to include involvement in training seminars and programs.

IFIC is a good example of the way specialized information analysis centres should develop to provide better services to their target users.

Lessons Learned and Future Action

The IFIC experience clearly offers several important lessons. First, IFIC's success has in large part been due to having a well-defined target audience and by repackaging information to meet needs of this well-defined audience. The need to identify a target audience and the type or types of information packaging they require is of paramount importance to all specialized information analysis centre.

Secondly, IFIC has used a network of correspondents in different countries to channel information back and forth between the correspondents' region and IFIC itself. This has not only provided considerable input to IFIC's services but has also served to provide feedback to IFIC on the usefulness and relevancy of their products. These correspondents represent direct users of IFIC information over and above the kind of representation offered by corresponding libraries and other exchange partners. Each correspondent has also served, no doubt, to promote IFIC services among his/her own contacts.
Thirdly, IFIC does not function as a completely autonomous unit. It shares equipment, capital expenses, documents, computer facilities, manpower and administered services with a central library, namely the Library and Regional Documentation Centre of AIT. This has allowed IFIC to offer its services at a reasonable cost since its own operating costs are shared. Although this posed some difficulties for IFIC in accounting for project expenditures since its costs were shared between the LRDC and other AIT information centres, the simple solution is to then lend support to IFIC and the other information centres through the LRDC. And in October 1984, this in fact was done by IDRC (3-P-84-0147).

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c.c. Judy Cray (3)
Jennie Leckie