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ScienceAsia reflects the maturity of science in Thailand and Asia

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Science is a universal undertaking, and new discoveries should be published in peer-reviewed journals or other publications widely accessible to readers all over the world. However, competition for space and limitation in the scope of major scientific journals, together with high publication costs, makes this a very difficult task, and the publishing researchers have to make a choice of submitting their work for publication in more specialized or minor journals. In many cases, especially when the work has local interest, the authors may choose to publish in local journals. Occasionally, the authors may choose local journals over universal ones for various reasons, such as speed of publishing. The question that first arises is: for a particular scientific circle, what journals fulfill the requirements of both quality and interest for the potential authors and readers?

The question came up some fifty years ago, when I came back to Thailand after a doctoral and postdoctoral studies overseas. Back then, there was quite a lively scientific community, many of whom were members of the Science Society of Thailand, founded by academics from the Faculty of Science of Chulalongkorn University. Dr. Kamchad Mongkolkul, then Editor of Science magazine, the only publication of the Society which publishes general articles and news on science in the Thai language, foresaw the need for a professional science journal, which would be the venue for publishing research of Thai scientists in English. The research may not quite be at a competitive level by world standard, but they might suit the need for location-specific investigation, and might even yield unique results for world science in general. Together with Dr. Stitya Sirisinha from Faculty of Science of Mahidol University, and other members of the Society, he convinced me to take the job of the editor of this newly planned journal.

I took on the job for ten years, with an editorial board and other experts who helped me in the review of the submitted papers, and suggestion for invited papers. The Science Society was short of financial support, and I had to contact the then Ministry of University Affairs to provide additional funding. Later, the National Research Council of Thailand would become a supporter of the journal also. An editorial board was formed, comprising active scientists from many institutions to help the editor deal with various issues, ranging from coverage of scientific subjects, types of articles, inviting articles from noted scientists, reviewing and suggesting reviewers for submitted articles, to the format of the journal. The editorial board met in persons for a few times, after which the work was done mainly by conversation and correspondence.

The journal was published quarterly, with articles including invited reviews, full research articles, research reports, and in early issues also editorials and book reviews. Current issues of interest were reflected in a number of articles. It is notable that many reviews and research articles are not only of high quality, but reflected the current issues and the interest of Thai scientists and world collaborators at the time. These articles have become the content of the time capsule of Thai and Southeast Asian science around fifty years ago. The list below shows some review and research articles of the first few issues, and more recent ones with policy implications:

- Sperm capacitation, by Colin Austin, a key collaborator of Robert Edwards who later received the Nobel Prize for his work in reproductive biology [2].
- Abnormal haemoglobins and thalassaemia, by H. Lehmann and A. Lang, recognizing the contributions of Thai researchers in this important area [3].
- Posture and skull features of prehistoric humans in Thailand, including skull trephining, by Sood Sangvichien, a noted anthropologist and medical teacher [4].
- Fodder fractionation and leaf protein by N.W. Pirie, a great biochemist who later turned his interest on feeding the world [5].
- Human lactate dehydrogenases, by Jisnuson Svasti and Sumalee Viriyachai, reflecting the interest of the research community then on reproductive biology [6].

[†]First editor of *ScienceAsia* and *JSST*; 1984 Outstanding Scientist of Thailand. NOTE: Some parts of this article were previously published in *ScienceAsia* 2018 [1].

A number of articles concerned general issues and infrastructure in science and technology in Thailand and Southeast Asia, for examples,

- Science centres, by R.S. Bhatal who later became the Foundation Director of Singapore Science Centre [7].
- Science development and science policy, by M.J. Moravcsik and Sanga Sabhasri, foreshadowing efforts to improve its status [8, 9].
- Civic science literacy in Thailand: the role of scientific communities to support lifelong learning [10], written by Ganigar Chen (present Vice President of the National Science Museum of Thailand) and colleagues.
- The role of the National Research Council of Thailand in developing research and innovation of the country, by the present NRCT Executive Director Wiparat De-ong [11].
- Issues discussed in the editorials, many of which have now been favourably resolved, included the need for a Ministry of Science and Technology, strategy for building up research manpower in Thailand, choice of appropriate technology, private sector research and development, and establishment of the National Centre for Genetic Engineering and Biotechnology.

Way before the age of h-index and various journal metrics, from the start efforts were made to have Journal of the Science Society of Thailand – later to become *ScienceAsia* – listed in Current Contents and covered by Science Citation Index. This was successful after many attempts, with listing in Agriculture, Biology and Environmental Sciences Section of Current Contents, although it was discontinued later, probably due to delays in publication in the early 1990s. The journal impact factor now is 1.0 (2023), a much improved record from around 0.26 in the late seventies.

After the first period of my editorship ended in 1984, we had six more editors: Jisnuson Svasti (1985–1987; 2001–2007); Yodhatai Thebtaranonth (1988–1989); Prapon Wilairat (1990–1991); I-Ming Tang (1992–1998), Worachart Sirawaraporn (2008–2018), and Piamsook Pongsawasdi (2019–present).

As the last millennium was coming to an end, I was again asked to take the helm of editorship of the journal, which I did for two years (1999–2000). Together with people in the Science Society and elsewhere, we agreed that Thailand had come to an important juncture of opening even more to the outside world. We considered that Thailand is a key integral part of Asia and of the world, and decided to change the name of the journal to *ScienceAsia* in 1999 in order to reflect the widening role of Thai science in the world. The journal also went online, one of the first journals from Thailand to do so.

During my editorship in 2000, we published research articles presenting breakthrough in the field of economical aquatic animals which are hot issues at that time, for example, the microsatellite genetic marker in shrimp by Chulalongkorn University and Australian researchers [12] and the genetic diversity among cultured oysters throughout Thailand, the work in collaboration between Mahidol and UK researchers, supported by the UK Darwin Initiatives for the Survivals of Species under the Marine Biodiversity Research [13].

ScienceAsia has come a long way from the day fifty years ago, when scientific research in Thailand was only just starting in earnest, and scientists were not sure whether publishing their research locally would mean the end of their work, rather than the opening of interest in the Asian context and wider. *ScienceAsia* has broadened its scope, from originally catering mainly for contributors and readers from Thailand, to welcoming broader participation from contributors and readers overseas, including China and other countries of Asia, particularly Southeast Asia. It is now a fully international journal, a unique contribution to the world of science published bimonthly from Thailand, with international boards of editors and reviewers. This development is in line with the publication of the International Science Council (2019) on the eight key principles of scientific publishing, including open access, timely peer review and accountability to the scientific community.

Let us hope that fifty more years from now, *ScienceAsia* will continue to be an important contribution to the world of science from Thailand.

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