



Materiales de Construcción: paths tread paths new

PATHS TREAD

Materiales de Construcción is a journal with a long history (having commemorated its 60th anniversary in 2011), a broad national and international readership and a consolidated position as a benchmark in its subject area, construction materials. That notwithstanding, this year (2014), it will be taking yet another step in the direction of new technologies and reinforcement of its internationalisation. But we'll go into that a bit later.

Looking back, we see that *Materiales de Construcción* has (naturally) evolved over these last 62 years. That evolution can be divided into four stages. During the first, from 1951 to 1957 (from the first to the 80th issue, see Figures 1 and 2), its name changed from *Últimos Avances en Materiales de Construcción* to *Materiales de Construcción: Últimos Avances*. That stage ended with issue No. 79, the first to be professionally printed.

The second stage ran from 1957 to 1985 (issues 80 to 200). In this stage papers were accepted from Spanish and foreign researchers alike and the journal became a vehicle for fluent communication between the Spanish cement industry and architects, engineers and scientists engaging in many other activities. Figure 3 reproduces the cover to issue 152. The third stage (1986–1997, issues 201 to 248) saw a change in the cover, pursuant to Spanish National Research Council (CSIC) specifications, and publication of most of the articles in two languages. In this stage the journal sought to internationalise by publishing most of its articles in English (although some were also released in French or German) as well as in Spanish. The cover to one of the third stage issues (201) is shown in Figure 4. The fourth stage, which began in 1998 (issue 249) and ended with the last issue published in 2013 (312), concurred with the journal's listing in the Science Citation Index (*Materiales de Construcción* was one of the first Spanish scientific journals to be listed in Journal Citation Reports® (JCR)). This period saw another change in the cover (further to CSIC corporate guidelines) and the creation of an open access portal for all the Council's journals (website: www.materconstrucc.revistas.csic.es). Figure 5 depicts the cover of issue 312, with the CSIC journals' corporate image.

The journal owes its longevity to the scores of people who, over the years, have made its ongoing presence possible. Its editors-in-chief, the members

of its Editorial Board (with such illustrious names as Pablo García de Paredes, José Calleja, Demetrio Gaspar, Francisco Arredondo, Francisco Soria, Tomás Vázquez and Teresa Solesio), the Eduardo Torroja Institute for Construction Science's (IETcc) Department of Publications staff (Juan Comins, Rosa Roda, María Martínez Mallén, Ramón Irigoyen, Jorge Vicente and Pimpina Bongligio) and many others have contributed to the journal's success over the last 62 years (1).

In 2014 we are witnessing the birth of a fifth stage, in which the journal will be published in digital format only and in a single language: English. But before introducing that new stage, allow me a few facts and figures on the journal's performance over the last 17 years as regards the number of articles received, rejected, and published and its listing in the leading databases. We believe that these data are important for an assessment of its point of departure in this new stage.

THE JOURNAL IN THE LAST 17 YEARS

Figure 6 shows the variation in the number of manuscripts received yearly by the journal's staff at the IETcc. The number rose gradually between 1996 and 2004, with an average of 60–80 papers received from the latter year onward. In 2013 the total was higher than ever, at over 100.

Figure 7 shows the percentage of articles rejected over the total received, a number that climbed visibly and steadily to over 50% beginning in 2011. That percentage is in line with the rejection rates reported by the leading journals in our area of expertise.

The first conclusion to be drawn from the number of manuscripts received and the percentage rejected is that a long number of articles are outstanding publication. In light of that situation, beginning in 2010, the number of pages printed yearly was increased to be able to publish more papers in each issue. Authors were also afforded the opportunity to publish their articles on line prior to their release in hard copy, giving rise to a new section entitled "forthcoming articles". Figure 8 shows the rise in the number released yearly. At this time, a total of around 40 original papers are published in the journal's four annual issues.

The journal's internationalisation has been another priority concern since I have been involved in its management. It was and continues to be one of our primary objectives. A number of measures have been taken

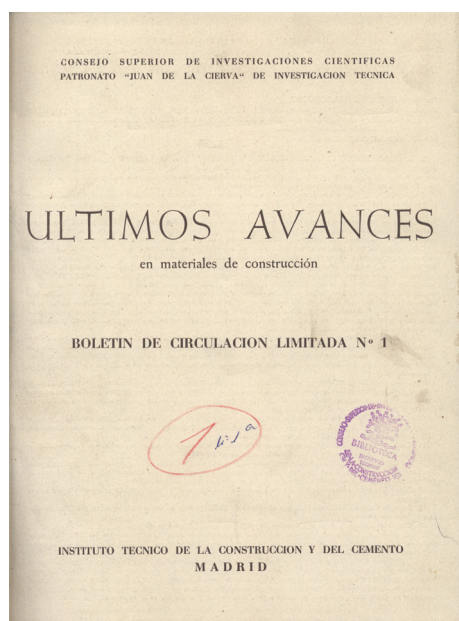


FIGURE 1. First stage. Cover to the first issue.

towards its attainment. One example is the publication of special monographic issues such as the three in 2003 (271–273) that carried the most significant communications to the ALCONPAT international congress. Another is the organisation, on the occasion of the 13th International Congress on the Chemistry of Cement held in Madrid in July 2011, of a panel on the “Role of scientific journals in cement chemistry”, with the participation of the editors of the major scientific journals dealing with construction materials.

As noted earlier, the journal’s international projection has been particularly significant in recent years. Suffice it to say that in the 3-year period

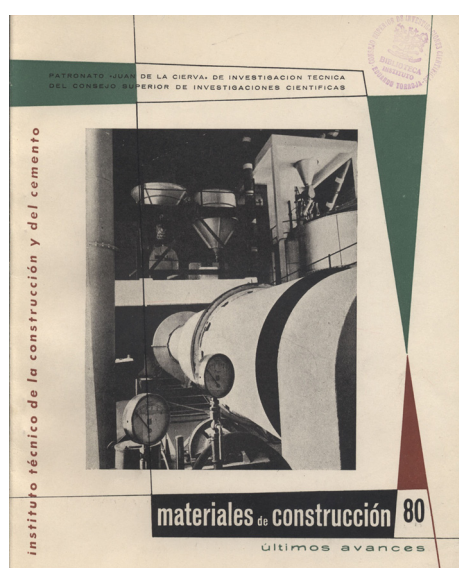


FIGURE 2. First stage. Cover to issue 80.



FIGURE 3. Second stage. Cover to issue 152.

2011–2013, over 45% of the manuscripts received were submitted by researchers and institutions in other countries. Especially worthy of note in this regard are the articles received from Latin America, which account for nearly 60% of all the international submissions. Most prominently, manuscripts are submitted by authors in Mexico, Colombia, Brazil, Argentina, Cuba and Chile. Europe accounts for around 20–30% of international articles, with Portugal, Italy, France and the United Kingdom

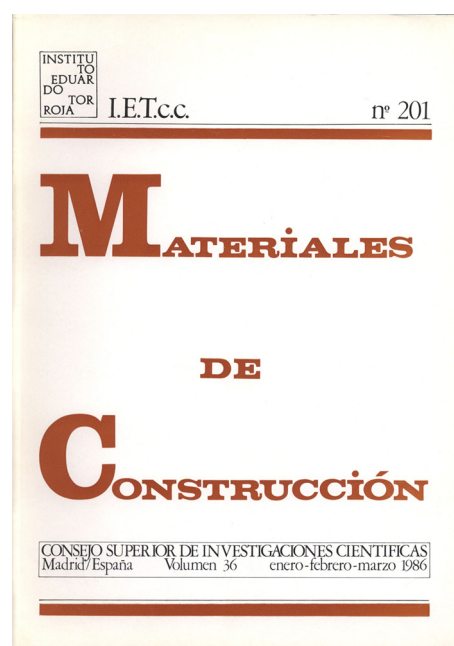


FIGURE 4. Third stage. Cover to issue 201.

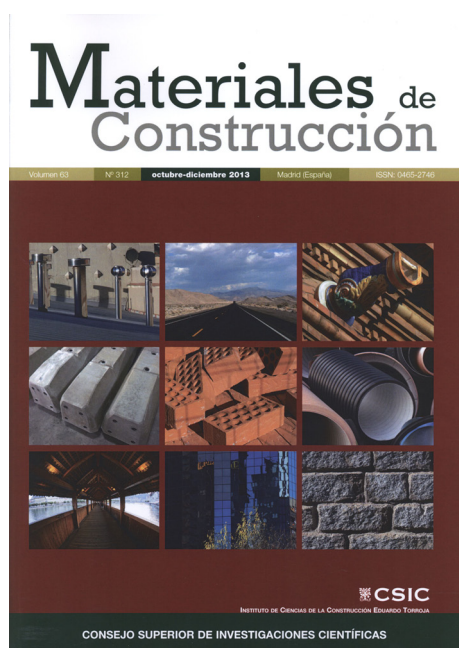


FIGURE 5. Fourth stage. Cover to issue 312.

as the frontrunners. The journal is also well known in other countries, including Egypt, Turkey, India, China and Australia. We believe that the English-only, on-line publication of the journal in this new stage will intensify its internationalisation.

But we are not concerned with internationalisation only: we also want to consolidate our position in Spain. That national submissions (approximately 55% of the total) are received from nearly all the country's universities and schools of engineering is a source of genuine satisfaction. The conclusions of a very recent study (2) provided a scientific interpretation of these data.

Another question of importance is the subject matter of the articles published. This factor has changed little in recent years. Around 60% of the manuscripts deal with cement and concrete, addressing a wide range of topics: the physical-chemistry of

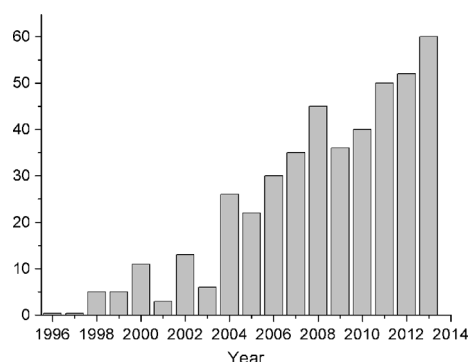


FIGURE 7. Percentage of manuscripts rejected.

the manufacture of cement and other binders; the reuse of industrial waste and by-products to prepare more eco-efficient materials; cement and concrete components (aggregates, admixtures, additions); special concretes; cementitious material durability; effect of the environment on construction material decay and many others. Around 25% of the articles published are geared to the restoration and conservation of materials intended for the historic heritage (stone, repair mortars and so on); and 15% report on research on other construction materials (such as timber, steel, ceramics, glass, polymers and composites).

The journal's editorial staff has aspired to encourage work in all these subject areas. Specifically, in this fourth stage monographic issues have been published on glass in construction (issues 242–243, 1996), composite materials in construction (issues 247–248, 1997) and natural stone (issues 289–290, 2008). We should stress that for many years, *Materiales de Construcción* was one of the few Spanish journals that published scientific papers on materials forming part of the national heritage, and the journal's editorial board has aspired to value such contributions in this latest period.

Another prominent development in this stage in the life of *Materiales de Construcción* was the listing of its contents in the major scientific

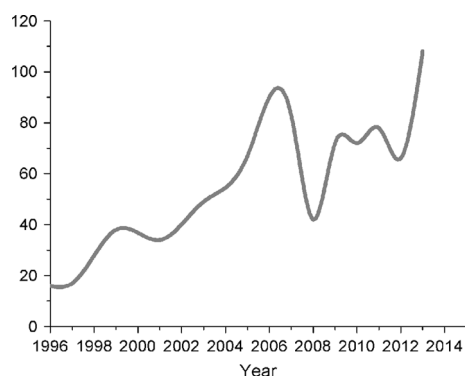


FIGURE 6. Number of manuscripts received yearly.

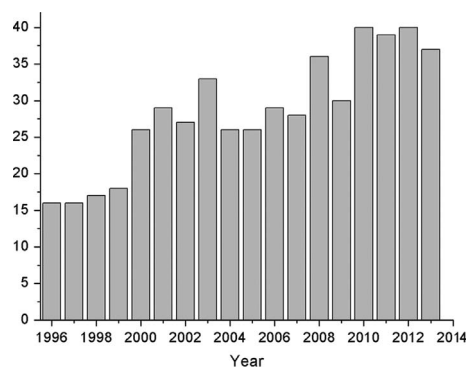


FIGURE 8. Articles published yearly.

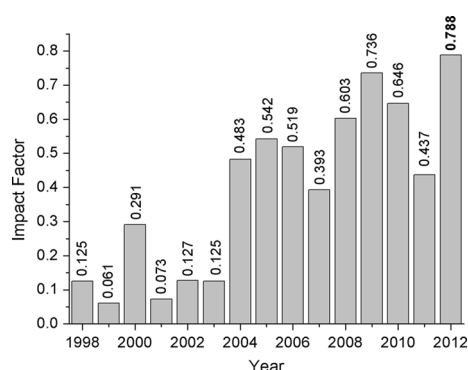


FIGURE 9. *Materiales de Construcción*: I.F. 1998–2012.

documentary databases. They appear, by way of example, in: Latindex, Pascal (CNRS), Scopus and The Getty Conservation Institute (at the invitation of these last three institutions), urbado, Compludoc, CSIC/ICYT, Dialnet, FECYT, Medatex . . . Furthermore, its contents have been included in the Science Citation Index (SCI) since 1996, and since 1998 in JCR (ISI Web of Knowledge's Journal Citation Reports®), where they have appeared uninterruptedly for the last 15 years. *Materiales de Construcción* was one of the first Spanish scientific journals, and the first in the area of construction and building technology, to be listed in JCR. Its contents have likewise been in the SCImago database since its founding in 2007.

The journal's impact factor (I.F.) over these 15 years is shown in Figure 9. The graph reveals that the I.F. has ranged from 0.5 to 0.8 since 2004, positioning *Materiales de Construcción* in the second (Q2) or third (Q3) quartile in its subject area. Its I.F. for 2012, the latest available, was the highest attained to date. With a score of 0.788, our journal ranked 27th (Q2) of the 57 journals in its area.

In the SCImago Journal Rankings, in turn, *Materiales de Construcción* had an SJR (SCImago Journal Ranking) of 0.570 in 2012 and was 23rd of the 83 journals in the building and construction area. In other words, it is positioned in Q2 and is the highest ranking Spanish journal in both this database and the ISI Web of Knowledge's JCR.

Impact, which is a measure of the quality of the articles published by a journal, can be assessed in terms of the rise in its I.F., as in this year, or of the number of citations received by the articles it publishes. By way of example, in 2012 the ISI-Web of Knowledge counted 271 citations (for an h-index

of 12), while SCOPUS listed 264 in that year (for an h-index of 13). An analysis of the origin of those citations showed that over 70% appeared in articles published in other journals. The number of citations has progressed exponentially in the last 15 years, an indication of the substantial improvement in the quality and impact of the articles published as well as of the journal's greater international reputation among its target scientific and technological community.

PATHS NEW

The kick-off year for a new and exciting stage in the life of *Materiales de Construcción* arrived on 1 January 2014. Since, in keeping with the needs of the times, the journal will adopt a strictly digital format, the printed version will no longer be published. An attempt will nonetheless be made to print a few copies to enable certain prominent libraries to maintain their collections. As announced in the editorial to issue 312, the journal can be read in PDF or HTML format. Furthermore, the publication of all articles in English only starting in 2014 has called for a change in the journal's layout and consequently in some items of its instructions for authors. We are of the conviction that these changes will heighten the journal's visibility to the benefit of all concerned in the release of each new issue.

Their effect will be analysed in the years to come, when we hope that the objectives defined will have been reached.

We wish to take this opportunity to thank everyone who in one way or another has been involved in meeting the journal's workaday needs.

Let us, then, set out on this new path with enthusiasm.

Francisca Puertas

(Editor-in-Chief, *Materiales de Construcción*)

Mar Alonso

(Secretary, Editorial Board)

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