keep showing Leonardo Torres Quevedo's work until he receives the recognition he deserves as "the most prodigious inventor of his time."

Further information on Torres Quevedo's contribution, the articles and books we have written, etc., can be found at: www.torresquevedo.org. Updates about exhibitions, lectures, articles, etc., will be posted at face-book.com/groups/leonardo.torres.quevedo

Francisco A. González Redondo
Complutense University of Madrid

Resources and Opportunities of the IEEE History Center and ETHW

The ieee history center opened in 1980, just as computers were becoming personal for people beyond the early adopters and the Computer Society signed its 44 000th member. Since then both organizations have expanded the ambit of their activities. The Center offers considerable resources for historians of computing: in free, online primary, and secondary sources, and funded opportunities and awards.

The History Center administers the Engineering and Technology History Wiki (ETHW, ethw.org). Currently enjoying two million visitors per year, this site acts as a repository for professional technical organizations, technologists, and researchers who want to upload and contribute relevant archival or primary documentation or articles. Over 50 first hand histories relating to "Computers and Information Processing" and submitted by individuals include memoirs by Allan Alcorn, IBM veterans, and Eleanor Ireland. Subjects range from working at Intel and NEC to creating early digital art and the MELVYL catalog. The site also hosts the IEEE Milestone Program, which includes recognition of numerous computer-related achievements around the world. Practitioners or historians seeking a stable archive at which they might place memories and historical materials they may have collected should consider using the ETHW.

In the opportunities domain, through its administration of the IEEE Life Members Fellowship (ieee.org/about/history-center/fellowship.html), the History Center has supported historians in computing. The US$25 000 grant, which helps underwrite a year of scholarship, has assisted 15 junior scholars since 1995 with their projects. Their names and research titles will be familiar to *Annals* readers, including Jacob Gaboury ("Image Objects: An Archaeology of Computer Graphics"); Joy Lisi Rankin ("A People's History of Computing in the United States"); Corinna Schlombs ("Productivity Machines: German Appropriations of American Technology from Mass Production to Computer Automation"); and Andrew Russell ("Open Standards and the Digital Age: History, Ideology, and Networks").

The Elizabeth & Emerson Pugh Young Scholar in Residence (ieee.org/about/history-center/internship.html) underwrites two months of research experience for promising scholars in the history of technology and engineering. The recipient helps with the Center's projects connected to their own area of interest.

The Bernard S. Finn IEEE History Prize (ieee.org/about/history-center/prize-paper.html), formerly the IEEE Life Members' Prize in Electrical History, honors the best paper in the history of electrotechnology published in a scholarly journal during the preceding year. Recent winners include Thomas Haigh and Mark Priestley, Gerardo Con Diaz, and Bernard Geoghegan. The recently instituted IEEE William and Joyce Middleton Electrical Engineering History Award

(ieee.org/about/history-center/middleton-award.html) is for "a book in the history of an IEEE-related technology that both exemplifies exceptional scholarship and reaches beyond academic communities toward a broad public audience." Winners include Jimmy Soni and Rob Goodman's biography of *Claude Shannon, A Mind at Play;* Megan Prelinger's *Inside the Machine: Art and Invention in the Electronic Age;* and Walter Isaacson's bestselling *The Innovators*.

More personally, I am the editor of the *Proceedings of the IEEE's* Scanning our Past section (proceedingsoftheieee.ieee.org/instructions-for-authors/preparing-special-features/#SOP). Popular articles have included Nathan's Brewer's account of Rogue derivatives and Brian L. Stuart's trilogy on simulating, programming, and debugging the ENIAC. In addition, Bernd Ullmann has written on Telefunken's analog computers, Lillian Hoddeson *et al.* on Sanford Ovshinsky and cognitive computing, and Jana Horáková and Jiří Mucha on reconstructing the 1968 Computer Graphic exhibition. Generous donations by Life Member Dennis Shapiro have made these articles open access through IEEExplore (ieeexplore.ieee.org/Xplore/home.jsp). I am always looking for additional articles.

In short, the History Center is committed to responding to any of IEEE's historical interests and there is much available to reward the technologist or researcher interested in the histories of computing. Sign up for the Center's triannual Newsletter (ieee.org/about/history-center/newsletters.html) for updates about its activities and reviews of books and exhibits.

Alexander B. Magoun
Outreach Historian, IEEE History Center
a.b.magoun@ieee.org

Vintage Computer Federation

The Vintage Computer Federation (vcfed.org) is a 501(c)3 educational nonprofit organization. Formally established in 2015, VCF is an amalgamation of the original Vintage Computer Festival, founded in 1997 by Sellam Ismail, the Mid-Atlantic Retro Computing Hobbyists (MARCH), founded in 2004 by Evan Koblentz and Andy Meyer, and the Vintage Computer Forum, founded in 2004 by Erik Klein.

The mission of VCF is to collect, restore, and preserve vintage computers and related technologies for the purposes of educating the public. Through its museum, volunteers, festivals, exhibitions, educational programs, and outreach to other vintage computing organizations, VCF connects hobbyists and enthusiasts with people who may not have had any exposure to computing before modern graphical interfaces and smartphones. VCF shares the collective knowledge of its membership and hosts talks by people who have been pivotal in the development of computing. In this way, context and depth are added to the understanding of the modern technology that permeates our lives and its impact on humanity and society. Via all these channels, VCF hopes to build a connection from past to present and to the future.

The advent of COVID caused VCF to make changes to its 2020 festivals. VCF West is traditionally held at the Computer History Museum in Mountain View, CA, USA. This year, the festival was held virtually on August 1st, with efforts headed by VCF board member and festival producer Erik Klein. Classes and presentations were offered on a variety of technical and historic computing topics, including the 6502 processor, PDP, ENIAC, and Univac computers.

VCF Pacific Northwest, produced by VCF board member Mike Brutman and normally held at Living Computers: Museum+Labs in Seattle, Washington, was cancelled this year due to COVID. The requirement to cancel came so close to the scheduled live event that there was no time to organize a virtual event.