

The BELS *Letter*

Published by the Board of Editors in the Life Sciences

Executive Council

Elected:

President

Shirley M. Peterson, ELS

Secretary

Mary Ann Schmidt, ELS

Treasurer

Nancy D. Taylor, ELS

Immediate Past President

Barbara B. Reitt, ELS(D)

Appointed:

Certification Exam Development

Karen F. Phillips, ELS

Diplomate Exam Development

Norman Grossblatt, ELS(D)

Registrar-Exam Administration, ELS

Leslie E. Neistadt, ELS

Appeals

Carol Kakalec Kohn, ELS(D)

Member Relations

Susan E. Aiello, ELS

Public Relations

Nominations and Election

Norman Grossblatt, ELS(D)

BELS Letter

Ann Morcos, ELS

Web-Site Management

Janice Jerrells, ELS

Editor

Ann Morcos, ELS

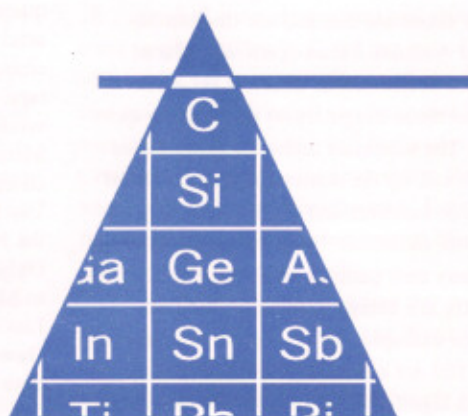
Column Editor

Barbara Schwedel, ELS

Contributor

Shirley M. Peterson, ELS

Paula L. Robbins, ELS



Beyond the Periodic Table

By Ann Morcos, ELS

Our perception of reality is that a natural order exists for all things in the universe and that that order reveals a natural flow. The icon of chemistry, the periodic table, was developed as an aid in understanding the elements and their relationships to one another. But does the traditional periodic table reflect our perception of reality?

History of the Periodic Table

Several European scientists in the 1860s began grouping chemical elements according to their function. A. F. Béguyer de Chancourtois, a French geologist, developed a list of elements arranged according to increasing atomic weight. John A. R. Newlands, a British analytical chemist, noted that chemical groups repeated every 8 elements. Dmitrii Mendeleev, a Russian chemist, and Lothar Meyer, a German chemist, independently arranged the elements into 7 columns, each column corresponding to various chemical and physical properties. Their tables were similar; however, Mendeleev's revealed the periodic relationship between chemical groups. Mendeleev arranged the 63 elements known during his time on the basis of atomic mass rather than atomic weight, as others had done. He then grouped the elements into rows and columns on the basis of their physical and chemical properties. It was not known in Mendeleev's time what atoms were made of or why they behaved the way they do. Nevertheless, on basis of the patterns revealed by his arrangement of the elements, he was able to predict the existence and properties of new, yet undiscovered elements.

The periodic table provides valuable information. From the position of an element on the table, the electron configuration can be inferred. Elements in the same column have identical valence electron configurations and therefore behave in a similar way chemically. If you are familiar with how the table is put

Features

1

Beyond the Periodic Table

2

A Note From the Prez

3

BELS Serves

4

Book Review

6

Examination Schedule

together, you can determine all sorts of information about an element, even if you have never heard of it.

Mendeleev's periodic table has changed over time, as the understanding of chemistry has evolved. Elements have been added as they have been discovered, more accurate values have been developed, references have been modified, column labels have been changed, and the position of some elements has been shifted. Over the years, many shapes have been used for the table, including 3D, spirals, circles, pyramids, and rectangles. However, the periodic tables used today in laboratories everywhere differ little from Mendeleev's table developed almost 130 years ago.

Has the time come for a new periodic table?

Charles William Johnson believes it has, and, in fact, has created one. Johnson specializes in international relations and oriental studies. He lived in Mexico for 20 years, where he studied and obtained degrees in Latin American studies, Oriental studies, sociology and international relations, was a researcher at the Institute of Social Science and taught in the social and political sciences at the School of Political Science in the theoretical fields of sociology and political science at the National Autonomous University of Mexico. Currently, he works as a bilingual interpreter and translator in New Orleans, Louisiana. Since 1992, he has been researching science in ancient artwork. He studied the ancient Maya long-count reckoning system (the manner in which the ancients reckoned time and space in their calendrical and astronomical systems of knowledge) and saw that it could be applied to the traditional periodic table. He saw that numbers within the periodicity of time in the ancient reckoning system were relevant to the numerical progression within the elements and the nature of periodicity within the periodic table itself.

Johnson calls his design the schemata of the elements. Using color-coded images, the design reveals new patterns of symmetry among the elements. New properties and characteristics of the elements can be illustrated that are not evident on the conventional table. When data are placed onto the schemata with their color-coded squares, properties and characteristics of elements become clear. Johnson's proposed schemata allow the visualization of periodicity with a proportional spacing among the elements. Other behavioral aspects of the elements can be visualized and

rendered into images at the atomic and molecular levels. New patterns of symmetry that are not detected on the conventional table become clear with Johnson's color-coded schemata.

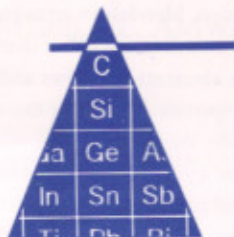
So rather than there being only 1 periodic table, there can be scores, each depicting a different characteristic or behavior of the elements. In the book *The Schemata of the Elements*, Johnson presents over 150 different schemata that depict aspects and characteristics of the behavior of the elements.

Many "irregularities" seem to exist in the behavior of the elements and their atoms as shown on the conventional table. However, with the schemata that include the Lanthanide and Actinide Series (generally placed below the conventional table), it becomes clear that these irregularities are actually quite regular. The schemata including these series do not break up the numerical progression of the atomic numbers and electronic configuration of the elements.

Many new patterns and subpatterns of symmetry are being revealed for the first time. For example, the placement of elements 71 and 103 are clarified with the schemata. This is a significant advancement in knowledge; however, it is small when compared with the numerous other relationships the schemata reveal.

"I pondered the 'ancient reckoning systems' and stumbled on the idea for the schemata," said Johnson. "A periodic table of elements that coincides with our perception of reality has been needed for a long time. The symmetries found in the schemata and their visual patterns are reflected in everything we observe every day of our lives."

For more information and to see samples of the schemata, visit:
<http://www.the-periodic-table.com> and
<http://www.theschemata.com>.



A Note from the Prez

By Shirley Peterson, ELS

Jan Jerrells, our Webmaster extraordinaire, is in the process of shepherding the BELS Web site into a new era. We have, at Jan's suggestion, retained Donna Perry of DPDesigns - Internet Services (our Internet service provider) to do all the uploading, downloading, and other necessary technical tasks to keep the Web site content current and working. Jan will remain as Webmaster during the transition, handling all site changes, questions, and the like. Please remember to send any address changes (including e-mail changes) to **Mary Ann Schmidt**, our secretary, who handles the printed directory and sends changes to Jan for the Web site rosters. Members may submit changes using the change-of-information form on the Web site. Use the "CLICK HERE" link at the bottom of the Membership Directory page, Members-Only Area. The submitted form goes directly to Mary Ann for processing. The BELS ListServ program is now under the aegis of **Dawn McCarra Bass**. If you wish to add your e-mail address to, or remove it from, ListServ, please notify Jan, the Webmaster (see directions under FAQ on the Web site; e-mail Webmaster@bels.org), not Dawn. All electronic communications (Web site and ListServ) will remain under the direction of the Webmaster.

BELS is now without a PR person. **Angela Lorio** has bowed out, but has left us a comprehensive master plan for a public relations campaign. Thanks, Angela. Anyone interested in taking over PR is invited (with gusto) to communicate with **Shirley Peterson**, BELS president.

Meanwhile, we appreciate other volunteers who have taken over the important job of notifying non-BELS manuscript editors of certification exams in their areas. **Candace Levy** is working with the Editorial Freelancers Association, Copyediting-L, Freelance, and other groups. **Caroline Simmons** has taken on the task of notifying AMWA members through regional newsletters, and through one chapter's ListServ. Caroline is also working with the *Journal of Young Investigators*. **Diana Mathis** is announcing exams to CSE and STC members, in addition to working with **Rhana Pike** who has set up the March 30 certification exam in Sydney, Australia.

"The Notifiers" are contemplating recruitment through editorial offices of large research institutions. For that effort BELS needs a small, slick, illustrated pamphlet. A member who designs the pamphlet will, of course, receive credit on the pamphlet. Interested? Talk to Shirley.

Nancy Taylor, BELS treasurer, has for-

warded the first collection of volunteer sheets received with dues payments (from about 30 of the 300 BELS members). The offers of time and talent are much appreciated. Please keep the dues and volunteer sheets coming. **Leslie Neistadt**, BELS registrar, reports that she is receiving queries and applications for all 3 March exams and the February exam in Houston.

BELS Serves. Summarized Q&A From the BELS Mailing List Server

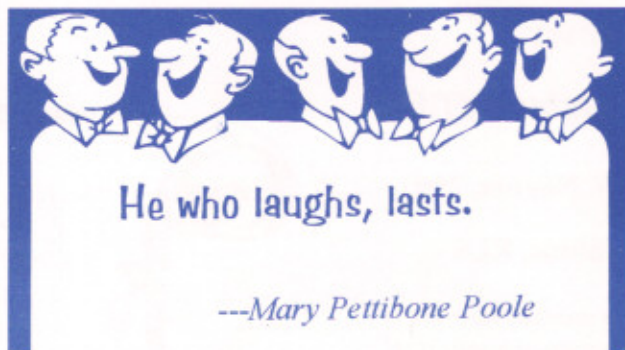
By Barbara Schwedel, ELS

Yet another holiday season has come and gone—I hope yours was healthy, meaningful, happy, and at least somewhat restful. Now that we're back at our desks, I offer the information in this column, which is based primarily on 4 recent Q&A discussions from the BELS mailing list. I hope one or more pieces of the advice presented will prove helpful as we face the challenges that come our way in 2002.

Before we go on, I wish to express a huge thank you to the originators of questions and the respondents who agreed to be cited in this column (even when material was cut due to space limitations!); moreover, I give double thanks to those originators of questions who actually provided summaries of the questions and responses. Now, here are the Q&As:

EEI Editorial Courses

Tamia Karpeles wanted to know whether people would be willing to share their thoughts about the editorial training courses offered through EEI Communications (formerly known as Editorial Experts, Inc.). She wrote, "Pure chance took me to the Web site for EEI Communications. . .during the final days of a summer discount on their Master Certificate programs. EEI is a well-regarded Virginia-based corporation offering professional services and training in writing, publishing, and Web development. I've long considered taking their courses, but found them too pricey for my freelance budget. . . With the discount in mind, however, I thought it might be a good time to reconsider. I had to make a decision quickly, so I queried the mailing list to see whether others had had experiences with EEI that they'd be willing to share."



Tamia heard from 5 people who had taken EEI's courses and 3 more who were familiar with its reputation. Almost all of the responses were positive. Respondents felt that the instructors were very capable and the workshops well presented. Most felt that a Master Certificate from EEI could carry some weight with prospective clients. A caveat from more than one source was to make sure to select courses that fit one's background and experience, as many are very basic. (Tamia found this advice helpful when she negotiated her electives.)

Based on this advice, Tamia "took the plunge" and registered for the certificate. She ended her mailing list discussion with, "I take my first class next week. . .Thanks so much to everyone who responded. It really helped me reach a balanced decision."

Tamia later provided this update: "I've completed 3 workshops so far and have found them very worthwhile." She added, "Would I have made the same decision without the benefit of advice from other BELS members? Maybe, but my knuckles would have been a lot whiter when it came time to sign over my credit card number."

What to Charge

Linda Watts Jackim asked for advice on a topic previously addressed by several other professional organizations of editors, writers, or both—but nevertheless intriguing and important—how to charge for freelance copyediting services. This question engendered a discussion that became quite lively, to say the least. Here's what Linda learned from those who so generously shared their rates (all amounts are per hour):

The 15 people who responded with concrete rates included 7 who charge \$25 for straight copyediting but go up to \$35 for substantive editing. Two members who copyedit dissertations charge \$20. Another 2 members reported that Lippincott and universities pay on the low end, with universities starting at

\$16 to \$20, and Lippincott at \$17.50 with the expectation that the editor will do about 7 to 8 pages an hour. John Wiley is said to pay \$20. One member has a special client every summer whom she charges \$40 to do editing related to an annual meeting. Another said she multiplied her previous hourly rate, as a salaried employee, by 3 to come up with a standard hourly rate. In addition, Linda was reminded that in July 2000, **Cheryl Wilder** posted to the BELS Bulletin Board a summary of 25 responses she received about substantive editing rates; throwing out the high and low, the average was \$47.71 per hour.

Ann Morcos recommended a good book by Laurie Lewis called *What to Charge: Pricing Strategies for Freelancers and Consultants* (Aletheia Publications, Inc.). Ann also mentioned the pricing section in *Writer's Market* (Writer's Digest Books), which lists medical and science editing at "\$20 low, \$60 mid-range, \$85 high." *Writer's Market* also suggests the following formula: Set an annual earnings goal for after taxes and expenses (say, \$30,000), add 30% for expenses as a new freelancer and another 30% for taxes, insurance, Social Security, and retirement (60% = \$18,000, for a total of \$48,000). Divide this by 2,080 (the number of hours in a 40-hour work week, 52 weeks a year) to arrive at a standard hourly rate (\$23.00).

Linda wants to work only about half that time for a \$30,000 take home, so she'll set her hourly rate at Cheryl's \$48 average for substantive editing and see what happens. She'll let us know.

Word Processing of Complex Documents

I needed help with some problems I'd been having with MSWord 97: "When [small] documents are incorporated into

Continued on page 5

Book Review:

The Seven Daughters of Eve
by Bryan Sykes
New York: W.W. Norton, 2001.

By Paula I. Robbins, ELS

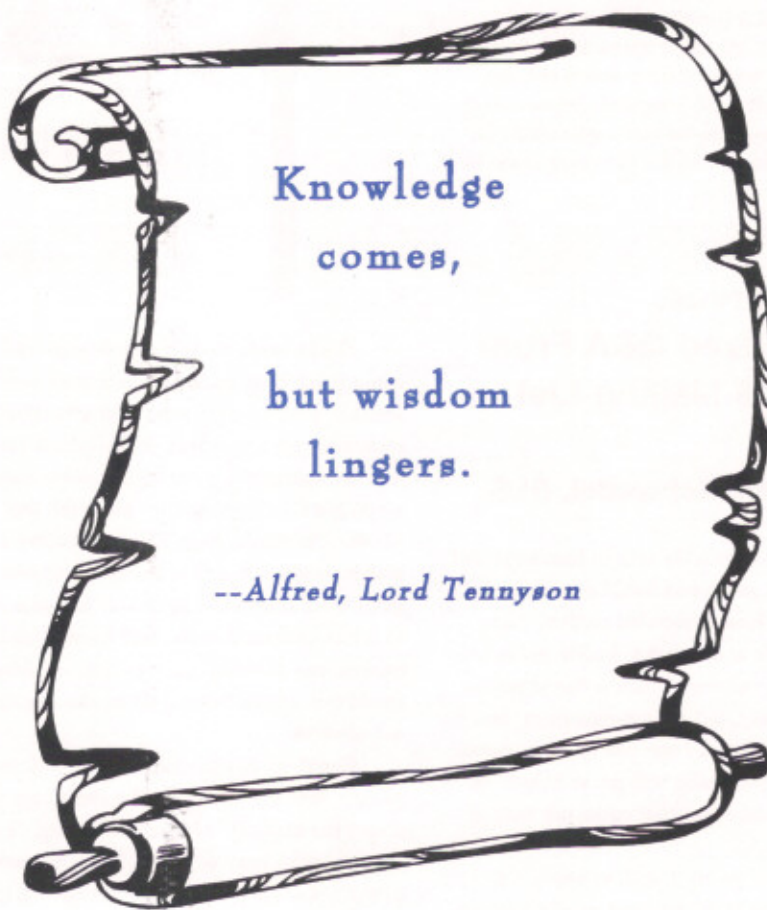
Doubtless, BELS members have followed the amazing progress of genetic studies in recent decades in sequencing the human genome, leading to the possibility of great progress in the control of many diseases. However, they may not have focused on the implications of genetic research for uncovering the history of the human race.

Bryan Sykes, Professor of Human Genetics at Oxford University, has written a fascinating account of how his research team was able to compile a family tree of *Homo sapiens* through the use of DNA samples. He began his career by studying the cause of inherited bone disease. After publishing an article in *Nature* in 1989 reporting that DNA could be recovered from ancient bones, he was called on to examine the remains of the bones of Ice Man and of the family of the last Russian czar.

In his research, Sykes focused on mitochondrial DNA. "Unlike the DNA in the chromosomes of the nucleus, which is inherited from both parents, everyone gets their mitochondria from only one parent—their mother." Mitochondrial DNA mutates about 20 times faster than does nuclear DNA, and in a short stretch, called the control region, mutations are especially frequent. This frequency enabled Sykes and his team to estimate the dates of these changes within the 150,000 years of human evolution—6,000 generations.

Sykes' research in Rarotonga in the Cook Islands disproved the theory of Thor Heyerdahl that the origin of the first Polynesians had been in the Americas, which he had tried to document by the voyage of the *Kon-Tiki*. Sykes demonstrated that the Polynesians had come from the Asian mainland.

Sykes' team has confirmed the findings of anthropologists that *Homo sapiens* originated in Africa. His laboratory found that subsequent populations could be traced through their maternal DNA. Their reconstructions identified 7 major genetic clusters among Europeans; over 95% of modern-day native Europeans fit into one or another



of these 7 groups. The team was able to estimate the ages of these clusters, between 45,000 and 10,000 years, by averaging the number of mutations found in all the modern members of the 7 different clans. By "purely logical deduction, the inescapable but breathtaking conclusion is that the single founder sequence at the root of each of the seven clusters was carried by just one woman in each case."

A different chapter of the book was devoted to a description of the life that each of these 7 women may have led and their geographical origin, based on archaeological research and climatic records. Sykes gives them each names and a hypothetical family. Although this device was useful in making their story more concrete, I found this section less convincing than the chapters describing his genetic research.

Over the last 10 years, researchers have analyzed and published mitochondrial DNA sequences from several thousand people from around the world. Thirty-three separate genetic clans have been identified; 13 are from Africa. "Although Africa has only 13

percent of the world's population, it lays claim to 40 per cent of the maternal clans, because *Homo sapiens* have been in Africa much longer than elsewhere. This finding is supported by archaeological research, the study of human fossils, and now genetics. We are all, amazingly, descendants of a 'Mitochondrial Eve.'"

The final conclusion that can be made from the results of Sykes' work is that it makes "nonsense of any biological basis for racial classification." "We are all a complete mixture; yet at the same time, we are all related. Each gene can trace its own journey to a different common ancestor."

Sykes' team maintains a Web site at < <http://www.oxfordancestors.com> >, which offers people a chance to find out for themselves, from a DNA sample, where they fit genetically in the human family tree, at a cost of \$240.

larger. . .submissions, 'strange' things sometimes happen, such as section headings getting corrupted. . ." I noted that I rarely start documents "from scratch" when I create them—rather, I usually copy a document from a similar document—and asked for ideas, possibly involving software to replace Word or making use of Word's Master Document feature.

Suggestions were submitted by 11 respondents (2 people each offered 2 suggestions) as follows:

- Use FrameMaker desktop publishing software: 1
- Use Quark desktop publishing software: 1
- Make a portable document format (PDF) of the document: 1 (PDF is page description format software, not word processing software)
- Use WordPerfect (WP) word processing software instead of Word: 4
- Continue to work in Word (although it may or may not be the best option), using specific techniques that might lessen the problems: 6

Subsequent to this discussion, several people advised me not to even consider using the Master Document feature of Word.

Norma Taylor suggested using FrameMaker: "It . . .takes a little orientation, but from then on, it's smoother sledding. . .!" Norma added, ". . .You mentioned the endnotes and cross-references. . .some of FrameMaker's most superior features! . . ." She continued later on, ". . .Bear in mind, the software is more expensive. . .but the savings come in the long run with the time saved in otherwise diddling around with the software that's ill-prepared to deal with large documents. . ." **Rebecca Robinson** recommended Quark, noting, ". . .For our purposes. . .its text-editing features [Quark's] are perfect. Because they aren't 'advanced' features. . .you get exact results. . .no more, no less. . ." However, I'll note that Quark doesn't come with a footnote/endnote feature. Rebecca suggested that if I do a lot of writing, substantive editing, or both, I might want to ". . .stay with a word-processing package for that and then use Quark for line editing and production. . ." **Sally Edwards** asked, ". . .did anyone suggest making a PDF of your document?" PDFs have been helpful in my experience, but most often at a late stage in document preparation—when editing is essentially completed and it is desirable that all recipients see the same page layout. **Diana Mathis** and 2 other respondents enthusiastically suggested WP—they highlighted the "Reveal

codes" feature (viewable by pressing Alt F3). Diana wrote, ". . .My preference is to use WordPerfect software, for this very reason. . . you can see exactly what is going on with the document—then easily delete codes. . .that increase the size of the document and the chance of crashes, as well as causing formatting problems. . ."

During this discussion, another WP enthusiast, **Bobbie Reitt**, provided this "alert" on WordPerfect 10: "My enthusiasm applies to any. . .version up through WordPerfect 9, but it does not extend to WordPerfect 10, which is a part of the WP Office Suite 2002. . . I. . .installed it on my system, with disastrous results. . .Clearly, Corel has issued this office suite far too soon. Those of us who like and use WordPerfect can hope that in coming months the bugs will be fixed. . . Corel has graciously said I can return the software for a full refund, by the way. Keep your fingers crossed, WordPerfectionists! Microsoft need not rule quite yet!"

Finally, here are approaches that would allow me to continue working in Word:

-- Eliminate automatic features (nearly everything except text, as I understand) from the smaller documents before combining them. This would probably not be the best option for me because of my heavy use of certain automatic Word features. However, others might find this an inexpensive (always a major advantage!) and simple solution for their needs.

-- Consistently format/customize documents to make Word work better. **Diana Mathis** noted, ". . .companies aren't likely to pay for another wordprocessing program. . .you're probably better off trying to get everyone. . . to format. . .documents exactly the same so the patchwork pieces fit together more seamlessly. . ." I strongly recommend this approach—it may not be the definitive solution, but if you don't do things like maximizing compatibility between documents, it's almost guaranteed you'll have problems!

-- Customize Word itself, eg, add certain macros and turn off some default features. **Mark Goodwin**, who prefers Word to WordPerfect, and Word 2000 to Word 97, made this suggestion. Mark wrote, "Word (I am speaking of Word 2000, here) has a much richer macro language. . .Neither Word nor WordPerfect should be used 'out of the box.' A thorough customization (including the development of professionally written

macros, as well as turning OFF many of the default features). . .is essential to maximize efficiency and productivity of either of these wordprocessing formats. . ."

Although Mark's ideas seemed promising, they also seemed to involve a lot of "up front" work. However, I found a book—*Word 97 Annoyances* (published by O'Reilly)—that recommends a somewhat similar approach. It's out of print, but I managed to find a used copy on Amazon.com. My progress since the initial discussion over the mailing list has been very slow, but I'm still optimistic. The proof, of course, will be in the successful combination of smaller documents into a large one.

Voice-Recognition Software

Jan Jerrells asked, "Does anyone have any experience with—and recommend positively—voice-recognition software for the PC? I am nursing a rip-roaring tendinitis in my dominant arm/elbow. . .I cannot just completely rest, nor not do any typing (which at least aggravates it, if not being the primary cause). . ."

The software mentioned most often was Dragon Naturally Speaking. **David Nadziejka** wrote, "My wife. . .has used Dragon Naturally Speaking Preferred with a lot of success. . ." David added that this product can be ordered online at < <http://voicerecognition.com/products/dragon/> >. He noted, however, ". . .Check out carefully the system requirements. . .version 4 required at least a 400 MHz Pentium II. . ." David's wife had no real problems in having to use an artificial or affected speech pattern with Dragon software they bought about a year ago, but she did have to speak somewhat slower than normal during the training period. **Flory Nye-Clement** also recommended Dragon Naturally Speaking, but with reservations: She found that the program took dictation quite well, and the professional version could learn from its mistakes ". . .(pretty cool). The real problem was with editing existing text. . .I was never able to use most of the editorial functions, including. . .pasting, or moving text, by voice. . ." because a subprogram would not install. Flory also advised, ". . .It did take a lot of time to train the software, and you do have to speak carefully, but not in an affected way. . .If you do a lot of copy typing, you'll find it very useful in any case. If mostly editing, you can still combine voice and keyboard/mouse commands to give your arm a break. . ."

On a lighter note, voice-recognition soft-

ware is susceptible to errors that are a bit "different"—the software will spell a word correctly, but does not always select the correct word in the first place. For example, one respondent (no kidding) told of a program interpreting "It doesn't take a genius" as "A dozen egg in jeans."

Respondents were also kind enough to mention several other potentially helpful approaches: **Jessica Ancker** wrote, "...I was able to get rid of my right hand pain several years ago by training my left hand to use my mouse (and switching the configuration of the mouse buttons from 'right-handed' to 'left-handed'). For me, this was a great solution because it lightened the workload for the right hand, and equalized the workload in the hands—now the right hand uses the arrow keys, and the left hand uses the mouse."

Editor's note: The topic of tendinitis provoked such a wonderful discussion that a series of articles is planned for upcoming issues that will cover the topic in depth.

Kendall Sterling, who provided extensive information about the topic during the discus-

sions, has graciously agreed to author this series. Look for the 1st installment in the Spring 2002 issue.

Last Licks

Tamia Karpeles wrote, "One resource that may be useful to others. . .who. . .think it would be kind of cool to be a Word power user, but aren't there yet, is < www.mvps.org/word >. The site is full of FAQs, tutorials, and other resources put together by Word-nerds whose *volunteer* technical support efforts have earned them Most Valuable Professionals status from Microsoft."

Sylvia van Roosmalen asked, "Ever been curious about the writing/editing world in Europe?. . .you might have fun fighting the fog at < <http://europa.eu.int/comm/translation/en/ftfog/index.htm> >." Also, for translators, the Eurodicautom website (< <http://europa.eu.int/eurodicautom/login.jsp> >). . .gives you a choice of twelve source languages and twelve target languages."

On the Menu for Future Columns

- Double-blind peer review process
- Symbol searching in Word
- Proofreading
- NSO or NSO cell lines?
- Other questions that arise. . .

Fine Print

(1) The opinions in this column belong to the people cited and not necessarily to BELS or any employer. (2) If a BELS member not already on our mailing list would like his or her e-mail address added, please contact the BELS Webmaster at < 3forks@mitec.net >. Please provide your name and the e-mail address at which you would like to receive BELS mail. You must be an active, ie, dues-paying, member to participate in the mailing list, and you can always have your e-mail address removed if you decide not to participate in the future. (3) Your comments and questions are always welcome. Please e-mail me at < BSchwedel@aol.com >.

BELS Certification Examination Schedule

Date	City & Association	Registration Deadline
2002		
February 23	Houston, TX, MD Anderson	February 2
March 23	Princeton, NJ (Public Library)	March 2
March 23	Memphis, TN (St. Jude)	March 2
March 30	Sydney, Australia	March 9
May 4	San Diego, CA, CSE	April 13
October 30	San Diego, CA, AMWA	October 9
2003		
March	San Francisco, CA (Asilomar)	TBA
May 3	Pittsburgh, PA, CSE	April 12
June 8	Bath, England, EASE	May 16
November 4	Miami, FL, AMWA	October 14

Please note: The deadline for registration is 3 weeks before the scheduled date of the examination. Please remember that the US mails are, in some cases, being delayed due to the current anthrax scare. Be sure to allow sufficient time for the application and registration process if you use the US mails. International mails may also take longer than usual.

For more information, write Registrar, BELS, c/o Leslie E. Neistadt, Hughston Sports Medicine Foundation, Inc. 6262 Veterans Parkway, Columbus, GA 31909, USA. Phone: (706) 576-3322, Fax: (706) 576-3348, e-mail: neistadt@hughston.com