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# The California Surveyor

Summer 1998

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NO.119







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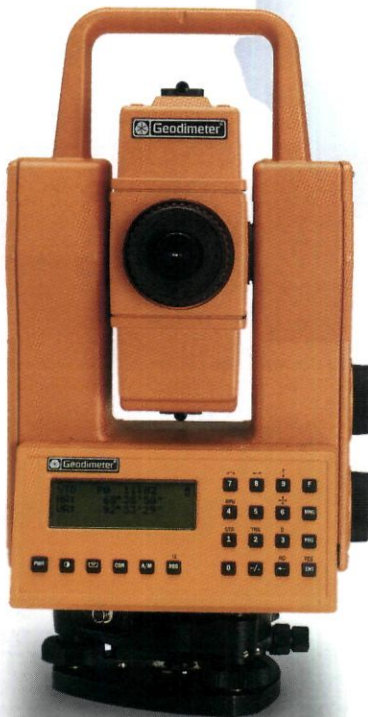
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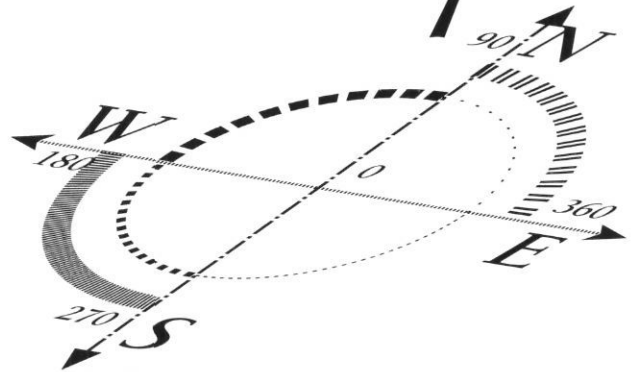
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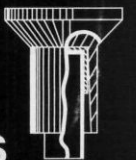
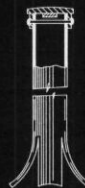
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"Recognizing that the true merit of a profession is determined by the value of its services to society, the California Land Surveyors Association does hereby dedicate itself to the promotion and protection of the profession of land surveying as a social and economic influence vital to the welfare of society, community, and state."

"The purpose of this organization is to promote the common good and welfare of its members in their activities in the profession of land surveying, to promote and maintain the highest possible standards of professional ethics and practices, to promote professional uniformity, to promote public faith and dependence in the Land Surveyors and their work."

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## EDITORIAL MATERIAL

All articles reports, letters, and contributions are accepted and will be considered for publication regardless of the author's affiliation with the California Land Surveyors Association, Inc. Contributions submitted on floppy diskette medium are encouraged. For compatibility, disks should be 5.25 or 3.5 inch, MSDOS (IBM compatible) format. We can accept ASCII text files or word processor files from the following programs: WordPerfect or Microsoft Word.

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## DEADLINE DATES

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Articles, reports, letters, etc., received after the above mentioned date will be considered for the next edition.

*Opinions expressed by the editor or individual writers are not necessarily endorsed by the California Land Surveyors Association Officers or its Board of Directors. Original articles may be reprinted with due credit given to the source and written notification to the California Land Surveyors Association.*

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# On The Cover

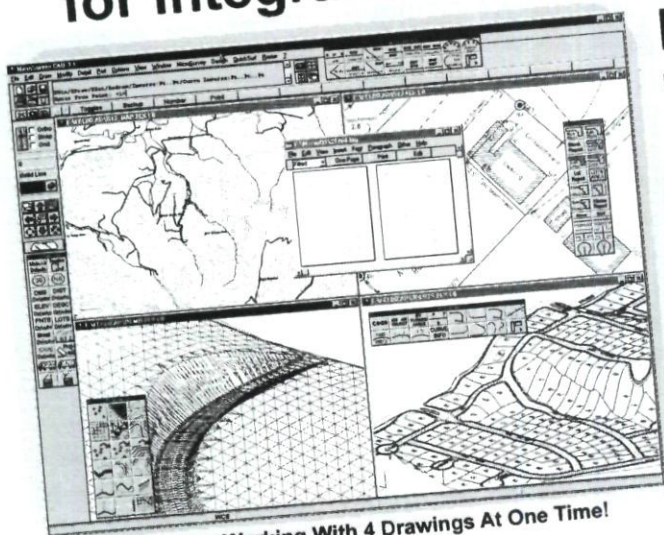
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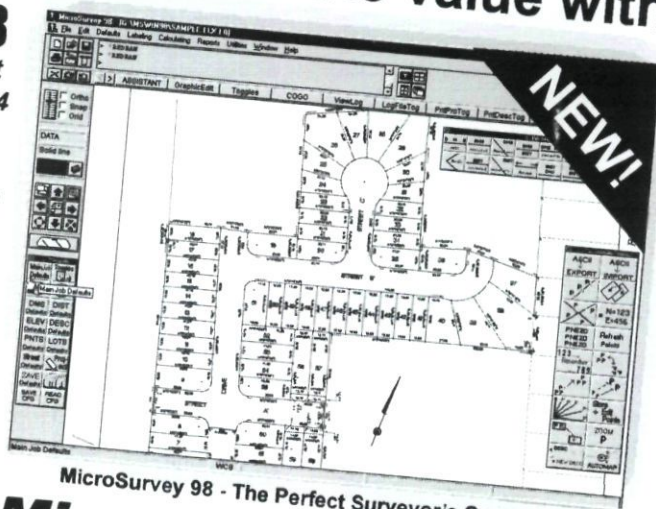
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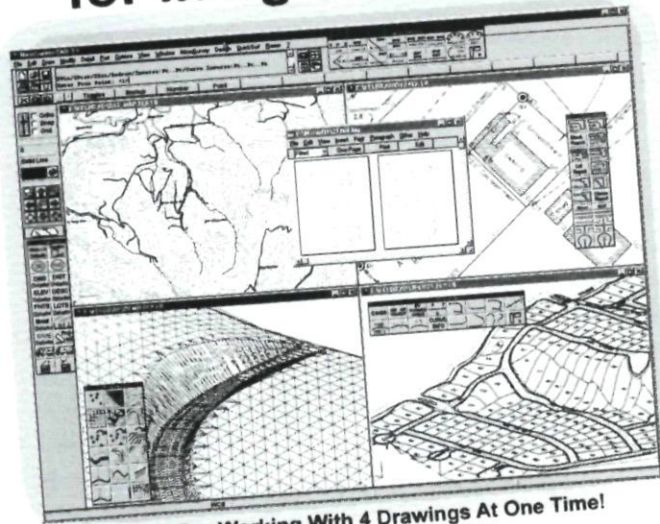
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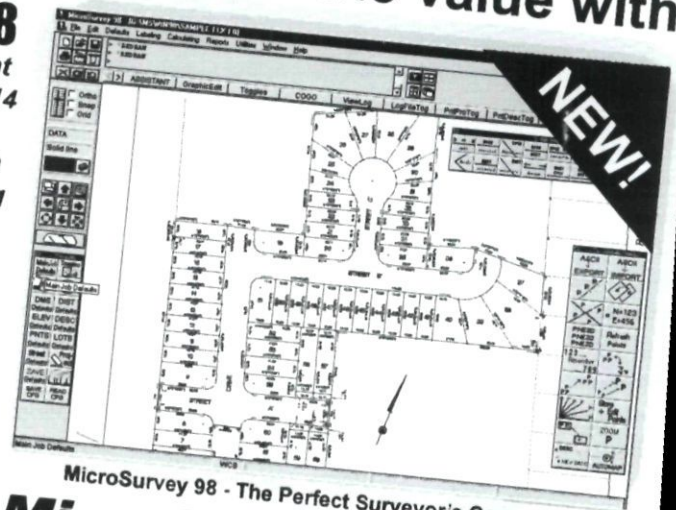


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# From the Editor

## A TEN

---

By: *Phil Danskin, PLS*

---

With the snap of Dorothy's fingers I'm out of my hypnotic trance and now am again dealing with a deadline. Today is a beautiful Sunday afternoon in the Northlands. The lawn needs mowing, the roses need feeding, (wouldn't want the deer to go hungry), the wife's car looks as though it's returned from the Farmers Market - without selling the goat, the wife could use a good - time, and today's DEADLINE, (sad background violin music, please, Maestro).

*"Stop cryin' in your beer Phil and get on with it!"*  
(Yes, I am talking to myself more these days!)

First things first . . . The CLSA/NALS conference at Lake Tahoe was a TEN! And it appeared nearly everybody atTENDED. Approximately 425 to be un-exact. The split was about 60% from California and 40% Nevada's people. The consensus of nearly all - "an excellent conference!"

Quality speakers would be an understatement . . . Dennis Mouland gave an informative workshop on the Public Land Survey System and another on Ethics. Another workshop on Real Property Descriptions was given by John R. Rinaldi, Jr., PLS who is a surveyor for the City of Henderson, Nevada. This guy not only knew his subject - but his presentation was stimulating! The workshops were filled to such capacity, the sounds of a thousand wind instruments could be heard, as knowledge whistled through the participant's auditory canals.

The luncheon entertainment was so enjoyable that it put the driveway scene in Boogie Nights to shame! President Steve "Lucky" Wilson was red with shock. So much so, it appeared as though a relapse in Steve's narcolepsy occurred during a visit to a tanning salon. Very red! The Gary Oakie Review was a real treat to the senses of sight and sound. Not to mention some cardiovascular exercise - via laughter! (I almost OD'ed on that!) If I were a rich man I would send this troupe to represent us at the ACSM/NSPS conference. Then the remainder of the country would understand Left Coast Thinking! A polished act! The Mrs. Doubtfire look-a-like

brought Karaoke to new heights. I wouldn't be surprised if they were asked to perform at Harrah's!

I was unable to attend the other workshops. However, the reviews indicated - "excellent!"

It was sure nice rubbing elbows with our Nevada peers! Of which . . . Terry McHenry, editor of the Nevada Traverse, was deservedly awarded the ACSM/NSPS First Place in Professional Journalism Award for 1997. From all your California cousins - congratulations Terry!

The Education Foundation Auction was very successful! Over \$20,000 was raised for this worthy event! An auctioneer that was a performance, in and of himself! Many deals on nostalgic equipment, (the Model 6 geodimeter brought back memories for me!), Trimble donating a GPS unit with antenna, etc., old maps, and old equipment! A sincere thanks for those who donated, those who bought, and those who helped! A fun event for a worthy cause!

The closing ceremonies, a mock trial was held with real attorneys, real(?) surveyors, and a judge so pretty she could sentence you to twenty years, and all you could think to do was return an amorous smile, and like a repentant child, look down sheepishly and say, "thank you, your honor."

The exhibitors booths showed all the razzle 'n dazzle of their wares. California Surveying and Drafting Supply threw an elaborate feed . . . together with an open bar. (Probably not a good idea with a group of hungry, tired and thirsty surveyors . . . I certainly enjoyed it!)

And let's not forget the dedicated SURVEYING students from University of California, Fresno, and University of Nevada, Las Vegas. They donated their time, with smiles, to performing copious laborious tasks that sometimes go un-noticed. THANK YOU!

Most of all we can't forget our Energizer Bunny - Dorothy "Get-it-done" Calegari! This gal goes, and goes, and goes! Where does she get all the energy? Observing her orchestrate this conference, was like watching Leonard Bernstein conduct the philharmonic! Hats off to Dorothy! Thank you! Thank you!

Thanks be to those who atTENDED this year's CLSA/NALS Conference. For those that did not - do next year!

Most sincerely, the not-so-new guy.

Phil Danskin, editor  
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# Letter to the Editor

## A FUNNY THING HAPPENED ON MY WAY TO THE RECORD OF SURVEY

By: Steven H. Jacobs, PLS 5296

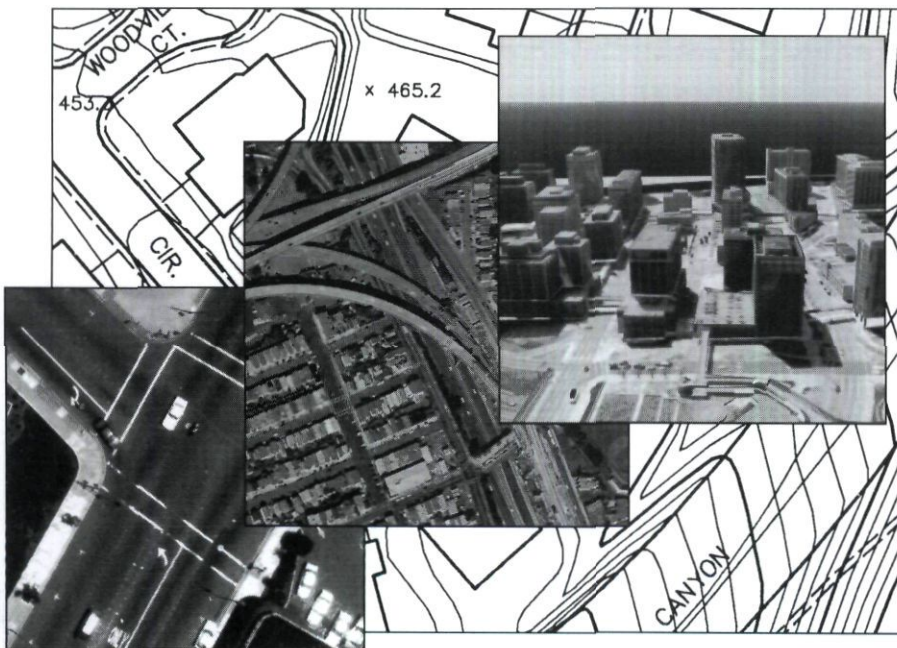
Though not a member of CLSA these past few years, I read **The California Surveyor** carefully from cover to cover, as it **is**, like it or not, **the** voice of the Land Surveyors of California. I have noticed a disturbing trend in the letters to the editor. The last two issues present a case in point. In the **Winter 1998** issue, Mr. Jeffrey Black, PLS 5252, licensed some fifteen years ago, launches a belligerent diatribe against the Record of Survey, CLSA, county surveyors and any other surveyor who disagrees with him. I have no objection to a logical, well reasoned attack on any legislation, or bureaucracy, most county surveyors or any surveyor who disagrees with me, but I fear that spurious, unsubstantiated, and exaggerated bombastic displays of pique do little to enhance our professional stature. Remember gentlemen, this **is** the voice of the Land Surveyors of California. Let studious insight, clarity of thought, and reason temper our passions and be our guides and mentors, thereby bringing credit to our profession.

In the Spring 98 issue, Mr. Mark Pfeiler, P.L.S, takes Mr. Black to task. While I agree that Mr. Black's letter is less than professional, I'm not sure of Mark's reasoning when he suggests Jeffrey "followed the likes of someone who looks for ways to cut every possible corner to get the job done, or is unable to convey the importance of record information." Rather harsh judgment, based on a single letter written perhaps, in the heat of passion. And that gets us to my point gentlemen. Argue and discourse if you will, it's probably healthy and stimulating, but avoid the name-calling, the red-herrings, unsubstantiated attacks, exaggeration and belligerence. Such written displays do nothing to enhance your personal reputation and reflect poorly on our profession.

In the original issue, the editor, a genuine and stalwart champion of the organization, responds to Mr. Black's accusations of CLSA's "naiveté", "very tired and very simplistic view", and "head-in-the-ground ideology," by reminding us of CLSA's unsuccessful attempt a couple of years back to bypass the County Surveyor's review of the Record of Survey. Undeniably true, but just exactly how did I, or any other member of the profession benefit from this action? I am afraid we will require a more ardent apologist. Here's President Steven Wilson, in the latest issue, extolling the virtues of belonging to CLSA. He offers the widely held belief that professionals have a responsibility to contribute to the good of their profession" (I would note that there are other ways to contribute to the profession than by

*Continued on page 10*

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*Continued from page 9*

joining CLSA), and concludes, "it is foolish to have a sense of security about our profession. He cites; in evidence:

1. Fresno State Surveying program renamed Geomatics Engineering
2. The Board of Registration almost sunset last year.
3. BORPELS considering change from "Professional" to "Licensed."

Summing up, he warns we "might want to be prepared to have new rubber stamps or seals made."

Circle the wagons boys, they comin' at us again! The Geomatics name game is something new, but the sunset threat has been unfurled as a red flag since before I was an Associate member. And as for the "Professional" to "Licensed" name change controversy, am I missing something? I've yet to notice any change since we switched to "Professional." Will going the other way be radically different? I am unsure why so many other of our brethren no longer join or belong to CLSA, but from my own perspective, CLSA is a large organization that spends large amounts of money and time to accomplish nothing. Prove me wrong and I'll rejoin. Facts and figures please, not hot air, bogeyman threats and reminders of unsuccessful past efforts.

The Record of Survey is another matter and I must strongly disagree with Mr. Black. In fifteen years of licensure, I have seen the benefit of increased recording of the Records of Survey. I think it is one of the best and most important things we do. Knowing I will be preparing a Record of Survey keeps me on my professional toes. I appreciate the county map checker's review of my map before recording. Yes, I have had occasion to feel the County Surveyor was over stepping the bounds of his office and yes, I have requested the map be filed over his objection. I am concerned about the disparity in county checking fees and the uneven level of checking encountered. I am not sure what I can do personally about the checking fees, but I can offer a little advice on the level of checking issue. First, do a good and thorough job, and then stand by your work. If you think the County Surveyor oversteps his office, tell him so, and if it gets serious, insist that he file the map, with his written objection if necessary, but have the map filed. We have few enough rights, that is one of them. Don't let it be trampled. In the long run, you are the guardian of your rights, guard them jealously.

In closing, I'd like to offer a comment on the movement to require a four year degree for licensing as a Surveyor. I am proud to be a Land Surveyor. I strove for ten years, junior college at first and then by study and on-the-job training to become a Licensed Surveyor. For the fifteen years since, I have worked to better myself professionally, to present a professional image and to interact with the community in such a way as to enhance the status of land surveying. For reasons beyond my control, I was forced to leave home after high school. A four year college degree was beyond my reach. Surveying offered the hard-working, earnest young man that I was to become a respected professional. To suggest that the profession will be elevated by requiring a four year degree demeans those like me who rose to professional status by hard work and determination.





## Book Review

# “Haidao Suanjing”

By: Steven H. Jacobs

### The Sea Island Mathematical Manual: Surveying and Mapping in Ancient China, presented by Frank J. Swetz, The Pennsylvania University Press, 1992.

*In comprehending by analogy, problems are always solvable though they may be very troublesome and obscure.*

Author, Liu Hui (A.D. 263)

An 1862 Edition of Gillespie's Land Surveying graces the shelves of my professional library. Well over a century old, it is a portal into the surveying past of long ago. And yet, not so very long ago. Seventeen centuries have passed since Liu Hui's compilation of the **Sea Island Manual**, much of the material is still relevant to modern surveying

practice. The text marks a high point of theoretical and mathematical sophistication in Chinese surveying theory and set the standards for much of East Asian surveying activities for a thousand years. Within the manual, reference is made to Chinese surveying practices three thousand years old. The early texts named astronomers, “surveyors of the heavens.” In the

earliest texts, the terms for astronomer and surveyor were identical. This slim volume, less than sixty-fives pages, including diagrams, reproduced engravings, calligraphy, and mathematical formulae, exposes the fortunate reader to new perspectives on surveying's important role in the evolution of humankind's social, cultural, intellectual, and military histories.

Somewhere in the technical schooling of the “second oldest profession”, the surveying acolyte is made aware of the Egyptian surveyor-priests, maybe read something of the Roman agrimensores, or a bit about Mr. Gunter and his chain, and of course regaled in our American forebearers, the Surveyor-Presidents. Our profession well knows that Mt. Rushmore really ought to be called “The Three Surveyors and the Other Guy.” This may present a sufficient history for the surveying\ businessman, but to an avid professional history enthusiast, our modern fundamentals of surveying curriculums may fail to satisfy the curiosity. Mr. Swetz's monograph, as historical gaps in the of development

*Continued on page 17*

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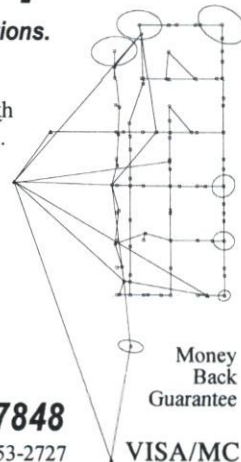
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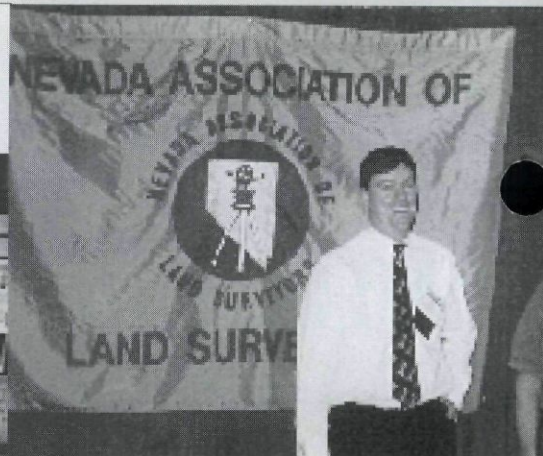




# Students



**ABOVE** – Last row, left to right: Bryan Witzel, Chris Bateman, Joe Sullivan and Ryan Cook. Middle row, left to right: Aaron Fowler, Adam Foster and Ben Bardakian. Front row, left to right: Chris Cokeley, Anne Minney, Julie Eckman, Heather Verre.



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## Gary Oakie Review







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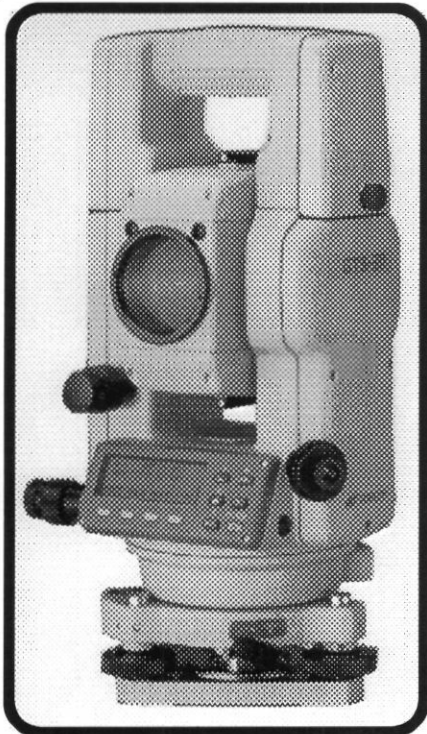


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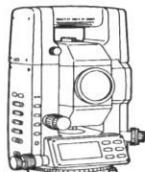
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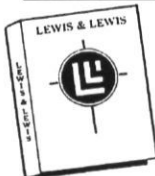


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# Member Benefits

By: Phil Danskin, PLS

*Some personal stories regarding benefits of belonging to the California Land Surveyor Association:*

## NEW BLOOD

Bill Lockett is a member and founding father of the Marin Chapter of CLSA. Mr. Lockett was doing research at the recorders office and noticed a surveyor performing the same. Bill introduces himself to the surveyor, (Dave Contreras.), and gave his pitch regarding the benefits of belonging to CLSA. Dave indicated he would give it a try and attend a meeting. He began coming to meetings . . . and when comfortable - became more vocal . . . then volunteers on a committee . . . And *now* - he's our secretary/treasurer. If it were not for Mr. Lockett's welcoming hand, the Marin Chapter might not have known this fine Surveyor. During the chapter blood drive, this new member willingly gave, unfortunately with pain, (the nurse missed his vein like a drunken dart-thrower in a Pub!) That is dedication! Dave has mentioned over and over again that he has received more than he has given to CLSA. Likewise, Dave!

## GRAPEVINE BREAKDOWN

Dominic Sanfilippo, (an associate), and his wife had newborn twins. His wife's sweet sister, who is a teacher, was on summer break and thought it would be nice to give mom a break and take the two older daughters, (ages 3 and 5), along with a cousin to

*Continued on page 16*

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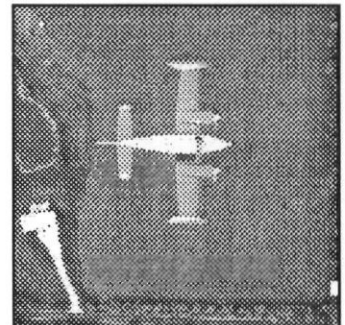
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Disneyland. They departed in Dom's van so everyone could be comfortable on the sojourn. One day into the trip, on a hot July afternoon, Dominic receives a near-hysterical call from his sister-in-law who is stuck in Castaic, (south of the I-5 Grapevine). She said the mechanic "smelled" the engine and determined it was blown! Dominic and I confer. I was not in trust of the smelly mechanic. We frantically brood. The girls obtained a rental car and we told them to leave the van to us, and to try and have a nice time at Disneyland.

Who do we know in that neck-of-the-woods? *Stupid me*, I thought, I'm a member of CLSA and we have cousins all over the state. So I look to see where they broke-down and look up the nearest CLSA Surveyor in Valencia. I get up my nerve to call a total stranger and confess our dilemma. His name is Dan May, and he not only recommended an honest mechanic, but furthermore offered to temporarily put the kids up at his home! Not necessary I said, but thanks! Mr. May's mechanic diagnosed the problem - at no cost and because the van was turbo'd recommended someone else. Richies did an excellent job repairing the van and later that month Dominic went to Valencia to pick it up. The estimated cost was higher than the final cost! Thanks, Richie the honest mechanic! Thanks, Mr. May for your trust and compassion to a fellow surveyor from the Northlands!

**DINNER CHAT**

At the CLSA/NALS Conference I dined with an Italian Surveyor and his cohort Ralph from the Northlands. (They chose Cabernet that was as close to a home-grown wine as one could get!) We talked about this and that and shared with them the thoughts of a letter that we send to adjoiners when performing a boundary survey. It is not something original, rather the ideas are from Walter G. Robillard and Knud Hermansen's Handbook of Annotated Forms for the Surveying Practice, (ISBN 0-471-55311-5 & ISBN 0-471-59247-1). A must for the reference library!

The letter notifies the neighbor of a pending boundary survey, requesting any information that may aid in boundary retracement, explanation of color-coded flagging, etc.

See a sample of this helpful letter in your next issue of CLSA NEWS.

**DUH BOTTOMLINE**

Fiscally belonging to CLSA is well worth the price of admission! (That is, if one's practice is a professional one.) . . . Watch . . . Nothing up my sleeves . . .

Phil, I need a current packet of registered surveyors, PE & PLS Act, Board Rules, Subdivision Map Act and Binder . . . *Chaah-ching* . . . . . \$ 14.00 savings

Steve, I'm on the road a lot - don't have time to take the SMA seminar . . .  
*How 'bout an audio tape by Bob Merritt, Esq?* . . . .  
*Chaah-ching* . . . . . \$ 5.00 savings

Gary, I've a good client that would like a generic explanation of surveying.  
*Nothing like Beardslee's land surveying booklet* . . . . .  
*Chaah-ching* . . . . . \$ 5.00 savings

Robert, I heard there is a booklet on easements with a checklist 'n all.  
*Ya'll came to the right place - Bender's Calif. Easements* . . . . *Chaah-ching* . . . . . \$ 10.00 savings

Gotta do some number-crunchin' Dorothy.  
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*Chaah-ching* . . . . . \$ 10.00 savings

Damn, Dan, I wanna go to the conference.  
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Now really, with dues costing 'bout \$160 per year what are you waiting for?! Besides, the aforementioned benefits are just *my* experiences. I'm certain other members have had similar benefits relating to CLSA, (feel free to share them with us!) As in any organization, be it Rotary, ACSM/NSPS, etc., you can not put a price on life-long acquaintances! Won't you please join? ❖



Continued from page 11

of Western surveying occasioned by regrettable lapses in the course of our professional training.

The "Sea Island" of the title refers to the problems of determining the distance to and elevation of a mountain on a distant island by indirect means. The methodology is akin to our theory of similar triangles. Efforts employing shadow reckoning were made to compute the distance to the sun, unfortunately, adherence to the theory of a flat earth introduced major errors into this attempt.

The tools of these early surveyors included sighting poles, *biao*, or *gnomen* the set square, *ju*, the plumb line, *xian*, the water level, *zhun*, as well as ropes and cords, later replaced by remarkably modern looking measuring tapes, *bu che*. In tradition and myth, the legendary emperor-engineer, Yu the Great, is often depicted holding a set-square, the instrument he used to tame the waters of China. The observation of shadow lengths was important in timekeeping and astronomical observation. The use of "shadow functions", the tangent and cotangent, were familiar to many ancient people who observed the heavens with the aid of a vertical staff.

It was the use of the set-square that made it possible to determine distances to inaccessible points. Instead of a trusty Hewlett-Packard, the ancient Chinese surveyor used computing rods of ivory or bamboo and a counting board for positional decimal orientation.

In 1973, excavations of a Han dynasty tomb uncovered three ancient maps, printed on silk, dating from 206 B.C. to 24 A.D.. Despite their age, many features were yet discernible. One of the maps, at a scale of 1:180,000 (remembering that a 15' quadrangle is at a scale of 1:62,500) shows a river basin that compares remarkably well with a modern day mapping of the area. Clearly these ancient surveyors possessed high levels of technical and mathematical skills.

From ancient pages Pei Xiu (A.D. 223-271) admonishes us on the six principles of good mapmaking:

1. The use of an appropriate scale
2. The employment of rectangular grid system.
3. Accurate measurements, differing elevations projected on a plane
4. Determination of elevations
5. Measurement of right and acute angles.
6. Measurement of curves and straight lines.

Continued on page 18

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Sound familiar? A bit later, circa 656 A.D., we learn that the normal civil service curriculum texts demanded a year of study, while that for **Haidao** required three years.

It should be remembered that surveying was not a solitary activity in the ancient world; it required a gang of laborer, assistants, and the master surveyor.

I have always been aware of the military focus of surveying, but thought it a more recent development. Swetz quotes Heron of Alexandria on the need for military surveying:

How many times in the attack of a stronghold have soldiers arrived at the foot of the ramparts and found their ladders and other necessary implements for the assault too short, and have consequently been defeated simply for not knowing how to use the Dioptra[i.e., to use surveying] for measuring the heights of walls; such heights have to be measured out of the range of enemy missiles.

Polybus (ca 203-120 B.C.) a Greek historian who accompanied Scipio on his African campaigns also noted the importance of surveying to find distances and heights of walls that could not be measured directly due to the enemies' presence.

A link of understanding between shadow-reckoning and scientific observation based on proven mathematical principles. In A.D. 724 the State Astronomical Bureau of the Tang Dynasty initiated the first meridian survey in the ancient world.

The primary source of information on land surveying practice is supplied by Heron of Alexandria's **Dioptra** (ca A.D. 62). The initial chapters describe the appearance and construction of a surveying instrument of the same name, a prototype theodolite.

The appearance of Leonardo of Pisa's **Practica Geometriae** (1220) gave surveying a firm mathematical basis. The astrolabe and the concept of the angle as a mathematical entity emerged. Despite these advances, it was not until the advent of widespread use of artillery as a siege weapon that distance measure to inaccessible objects became an important subject in surveying manuals and problems began to take on the complexity similar to that found in the **Haidao**.

I was curious to discover that the ancient Greeks felt the application of geometry to the problems of land mensuration to be degrading. I beg your pardon? ❖



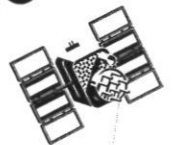
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# Obituaries

## WILLIAM OLIVER GENTRY (1923-1998)

William O. Gentry, PLS # 2737 passed away on April 13, 1998 at the age of 75.

Bill moved to Fresno in 1933 with his parents Russell and Erma Gentry and his sister Jacquelyn. He quickly took up an interest in land surveying and in 1948 began his career with J.A. Ross & Associates. He was licensed in 1952 and stayed with J.A. Ross until starting his own firm, W.O. Gentry & Associates, in 1970. Bill was an active member of the San Joaquin Valley Chapter, CLSA as well as the state organization, serving many years as Chairman of various committees, member of the Board of Directors and President of CLSA 1980 & 1981. Bill's sense of humor, professional attitude and his support of the surveying profession will be missed by his many friends and colleagues.

Bill is survived by his loving wife of 47 years, Betty Gentry of Fresno; two sons, Norman Gentry of St. Charles, Missouri and Ken Gentry of Dunlap, California; daughter Kathy DeGunya of Fresno; ten grandchildren and one great-grandchild.

## LEON B. SUMNER, PLS 4844

A memorial wake for Leon Bruce Sumner, 64, of Porterville, will be held at a later date. Mr. Sumner passed away on Sunday, February 22, 1998.

Born in Ashville, N.C., Mr. Sumner was a resident of Porterville for 21 years after moving from San Francisco. He was a veteran of the U.S. Army and stationed in Germany during the Korean Conflict.

Mr. Sumner was a co-designer of the Sipe-Sumner Pattern Vernier Compass. He worked as a cadastral engineer for the U.S. Forest Service for 33 years. The latter 31 of those years he worked in Willows, (Mendocino County), Regional Office in San Francisco and Sequoia National Forest in Porterville. He was a licensed land Surveyor in California, (LS 4844), and West Virginia, (#166).

Mr. Sumner received several honors while attending University of North Carolina.

Mr. Sumner's survivors include his wife of 21 years, Jean-Teresa Sumner of Porterville; two brothers, Mark Reese Sumner, Sr. of Chapel Hill, N.C., and Thomas Hay Sumner of Waterloo, Iowa; and many nieces and nephews.

At Mr. Sumner's request, he asked that memorial contributions from friends and family come in the form of planting trees in his memory, whether in pots, yards, parks or forests.

*(Although I never met Mr. Sumner, I share his love of trees. In his memory, some trees will be planted in my community! Another nice idea, Leon! Ed.)*

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# Here's Some Important Information About CLSA

The goal of the California Land Surveyors Association is to promote and enhance the profession of surveying, to promote the common good and welfare of its members, to promote and maintain the highest possible standards of professional ethics and practice, and to elevate the public's understanding of our profession. CLSA represents all Land Surveyors, whether they are employees or proprietors, whether in public or the private sector.

## Representation

LOCAL: Your local chapter represents you in local issues. Through your chapter representative to the State Board of Directors, the individual member can direct the course CLSA will take. STATE: The Surveyor is represented at the state level through an active legislative program, legislative advocate, and liaison with the State Board of Registration. REGIONAL: CLSA is an active member of the Western Federation of Professional Surveyors. This Federation is composed of associations throughout the western United States and addresses regional issues. NATIONAL: Through institutional affiliation with the national Society of Professional Surveyors and the American Congress on Surveying and Mapping, CLSA is represented at the national level.

## Education Opportunities

CLSA presents annual conferences which provide technical and business programs, as well as exhibits of the latest in surveying and computing technology. Seminars and workshops are presented to assist in continuing education. CLSA publishes the California Surveyor magazine and the CLSA NEWS to keep the membership abreast of changing legislation, legal opinions, and other items which affect our profession.

## Business and Professional Services

CLSA provides a fully staffed central office which is available to answer questions or to provide up-to-date referrals concerning legislation, educational opportunities, job opportunities, or other issues concerning our membership. Professional liability insurance program are available to members.

## Join CLSA Today!

- CORPORATE MEMBER:** Shall have a valid CA Professional Land Surveyor or Photogrammetric license \*\$159.00 + Entrance Fee
- AFFILIATE MEMBER:** Any person who, in their profession or vocation, relies upon the fundamentals of land surveying \$79.50 + Entrance Fee
- ASSOCIATE MEMBER:** Any person who holds a valid certificate as a Land Surveyor-in-Training \*\$79.50 + Entrance Fee
- OUT-OF-STATE:** Any person who reside in a state other than California, who is a member of their resident state Land Surveyor Association, and meets the requirements of Regular Corporate Member, Associate Member, or Affiliate Member \*\$79.50 + Entrance Fee (Corporate); \*\$39.75 (Associate of Affiliate) + Entrance Fee
- STUDENT MEMBER:** A student in a college or university actively pursuing a surveying education \*\$15.90
- SUSTAINING MEMBER:** Any individual, company or corporation who, by their interest in the land surveying profession, is desirous of supporting the purposes of this corporation. \*\$318.00 + Entrance Fee

### Application for Membership in the California Land Surveyors Association

Mail you Completed Application to:

CLSA Central Office  
P.O. Box 9098  
Santa Rosa, CA 95405-9990

#### Questions?

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\*First year's annual dues are to be prorated from date of application

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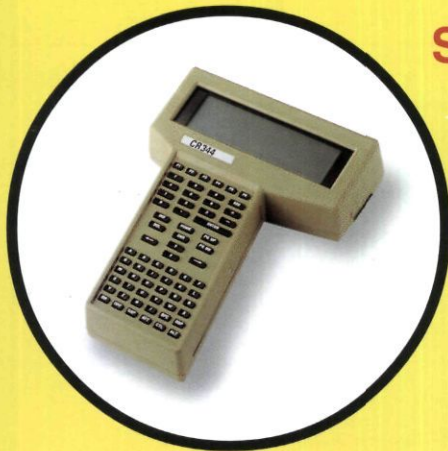
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