

## Professional Astronomy without a Librarian

Heinz Andernach

*Depto. de Astronomía, Univ. de Guanajuato, Apdo. Postal 144,  
Guanajuato, C.P. 36000, Mexico*  
*heinz@abell.astro.ugto.mx*

**Abstract.** Virtually every “serious” place in which professional astronomy is done has a librarian, even if the library is shared with the physics or math department. Since its creation in 1994, the *Departamento de Astronomía* (DA) of Universidad de Guanajuato (UG) was neither provided with a librarian, nor with proper space for its holdings, nor with a budget allowing the ordering of institutional journal subscriptions. I describe my experience of now five years as an “amateur” librarian, and present information on other small astronomical institutions in Mexico that are in a similar situation.

### 1. The Place

Since 1997, the DA of UG (DAUG) is housed at 2200 m above sea level, overlooking the city of Guanajuato, close to the “geometrical center” of Mexico, and declared as “heritage of mankind” by UNESCO. The research staff of eight astronomers participates in undergraduate teaching of Physics and other programs at UG, and hopes to offer a postgraduate program in astrophysics soon. The DA maintains the *Observatorio La Luz* from our headquarters and at 2405 m altitude, with a 57-cm optical reflector, used for public outreach purposes and it is also being prepared as a student laboratory.

### 2. Origins of our Library

The two founders of the DA had already collected (by donations) a few decades of *ApJ*, *AJ*, and *MNRAS*, but other major journals (like *A&A*) had been subscribed to from the year 1994. Since my arrival, in late 1996, I volunteered as “provisional” librarian, given the absence of a professional librarian at UG; and, the central library of UG was too far away to manage efficiently. This situation continues today.

After preparing the first inventory of our holdings in early 1997, I posted an inquiry to the ASTROLIB discussion list asking for donations in order to fill the holes of our journal coverage. This action caused a wave of offers from professional librarians around the world and hundreds of kilos of journals arrived over the following months. In June 1997, the DA moved to its present building with only six offices for ten people, and no library room. However, our neighbor, the Maths Research Center, “CIMAT”, maintained by the Mexican

science foundation CONACyT, generously offered  $\sim 60 \text{ m}^2$  of their library space on a “provisional” basis for the DA’s use. CIMAT is  $\sim 200 \text{ m}$  away ( $\sim 40 \text{ m}$  vertical!), and it *closes* during nights and weekends which never made it attractive for a “leisure visit”. After five years, nothing has changed!

### 3. Our Present Library

As it was not practical to store all our holdings “up there” at CIMAT, we decided to use all available space in the offices and corridors for the most recent journals ( $\sim 1$  year back) and modern books (for teaching and research). Until now, our hopes to obtain a dedicated library have not been fulfilled, despite a written promise for money to be allocated by UG in spring 2001. In the interim, the journals have grown hopelessly beyond their initially assigned space, and maintaining them in alphabetical order is beyond our available manpower. Moreover, most of our journal holdings have now become available online from ADS, thus, making a visit to the physical library less attractive to our staff. However, given our slow internet line, downloading of articles is often limited to weekends.

In the absence of a librarian, or other suitable personnel, I seal the books with a DA stamp but do not assign them a catalog number, so they have no “reproducible” shelf location yet. Moreover, in mid-1999 a heavy rain and a leaky window affected part of our shelves at CIMAT, and about 15% of our book holdings, many of them of historic interest, were waterlogged. Most of the book holdings had to be removed hurriedly (in my absence), and, since then, only a very limited “order” has re-established. I visit the library once a month in order to accommodate what does not fit in our offices.

### 4. Subscriptions

Since its foundation, the DA has received the six major astronomy journals by personal subscription. We planned to be gradually able to pay institutional rates; but, with a 2002 budget of USD 3000 we still cannot afford a single journal at the institutional rate. Thanks to the generous offer by some publishers to continue with the personal rate, we have managed to subscribe to *ApJ*, *ApJS*, *AJ*, *MNRAS*, *A&A*, *Nature*, *PASA*, *PASJ*, *PASP*, *BAAS*, *S&T*, and *Mercury*. The funds also enable us to buy very few conference proceedings (mainly from the *ASP Conf. Series*) and IAU Symposia. The budget for books and other proceedings depends on the allocation of special funds from the Federal Secretary of Public Education (SEP) and on personal research projects (usually from CONACyT), and fluctuates between 0 and 8000 USD/yr. Delays in either the publisher invoices or the payments by our central library, usually cause an interruption of our subscriptions during the first few months of each year (Does this sound familiar to you...?). Altogether, we are far from the ideal situation described in my earlier wishlist (Andernach 1998).

## 5. Donations

Thanks to frequent offers of duplicate items from professional astronomy librarians (e.g. via ASTROLIB), we have acquired an impressive amount of (mostly older) journals and monographs. Naturally, many of these items are of interest to either the bibliophile or historians of astronomy and physics. While filling me with pride, it is a shame to store these books some 200 m away from our offices where hardly any of us find the leisure time to browse the shelves.

## 6. Inventory

I maintain the inventory as a single ASCII file (of  $\sim 300$  kb), readable by all members of the DA. It saves me from having to learn dedicated library software and allows an easy search of items using Unix's `grep` command. For journals, I use `bibcode`-style, and free format for the "rest" (monographs, theses, manuals, etc., currently  $\sim 700$  items). A small excerpt follows:

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1834MmRAS 7 + | 1879MNRAS 39 - #2 Suppl. (p.489-560)
1843MmRAS 13 + | 1891MNRAS 52 - #2 Suppl. (p. 67-121)
1843MmRAS 14 + | 1933MNRAS 93 - 4-6,8,9
1847MmRAS 17 + | 1942MNRAS 101 - 8 only
1849MmRAS 19 + | 1942MNRAS 102 +
...
1879MNRAS 39 - no. 2 Suppl. (p.489-560)
1891MNRAS 52 - no. 2 Suppl. (p. 67-121)

```

Annals of the Cape Observatory VI, Darling & Son, 1897.

P.S. Barrera, E. Castro, J.R. Garza, J.J. Martinez, R. Aguirre: Memorias del Gran Eclipse del Sol, Montemorelos, Nuevo León, 28 mayo 1900, Universidad Autónoma de Nuevo León, 114 pp.

M. de Broglie: X-rays, Transl. by J.R. Clarke, E.P. Dutton & Co. Publishers, 1922, 204 pp.

D. S. De Young: The physics of extragalactic radio sources, Univ. Chicago Press, 2002, 558 pp.

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## 7. Other Places in Mexico

There are now eight places in Mexico in which professional astronomers work (Phillips et al., 2002). A rough map of their location is shown in Fig. 1. Only IA-UNAM, INAOE, and OAN (#1-3) have long histories and stable budgets to maintain a library and a librarian. IA-UNAM (Mexico City & Ensenada) and INAOE (Puebla) have long histories; while all of the others (#4-8) were established during the last decade. The following table gives an overview of the library situation at these five "new" places. The last column provides a comparison with the OAN library at Ensenada, maintained by UNAM. Numbers in brackets are either uncertain or variable. The budget is listed for journals + books.

Astronomy acquisitions for IAM-UdG and Monterrey are made by their central libraries, thus causing a lack of transparency and communication between these

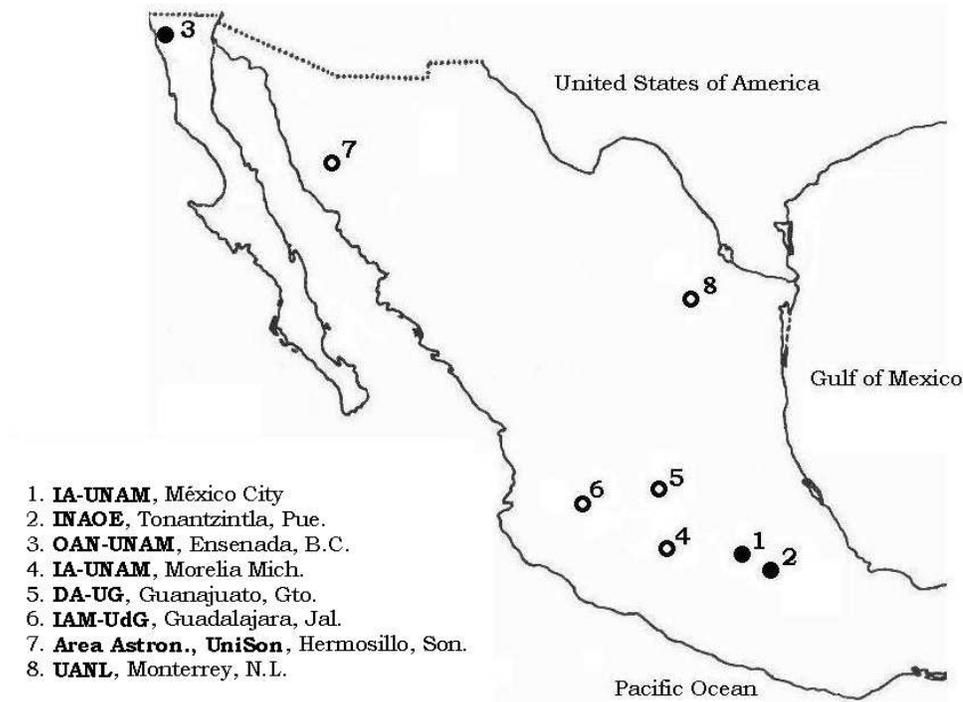


Figure 1. Current centres of professional astronomy in Mexico.

and the astronomers. At DAUG we have no budget for binding journals. However, in 2001 we used some left-over monies for binding a few years of *ApJ* only to learn that it was  $\sim$ three times cheaper to bind them in Mexico City than in Guanajuato.

Location and ID # in Fig. 1	Morelia (4)	DAUG (5)	IAM-UdG (6)	U. Son-ora (7)	Monter-rey (8)	Ensen-ada (3)
Research Staff	19	8	5	4	1	25
Librarian(s) available	-	-	(2)	-	(1)	1
Library Space exists?	yes	(yes)	no	(yes)	no	yes
# journals subscribed	7	10	7	-	8	62
Subscription rate	inst.	pers.	inst.	-	pers.	inst.
# back years available	$\sim$ 20	$\sim$ 50	2.5	(2)	6-20	$\sim$ 20
budget/year [1K USD]	10+4	3+(2)	3.5+?	-	$\leq$ 1	33+15
Inventory exists?	no	yes	no	(yes)	(yes)	yes

## 8. Conclusion

The changes in the job market and the Internet have affected not only the way astronomers work, but also how an astronomy library is run, especially at small and “poor” places. Today small groups of astronomers are established independently of favorable sky conditions and rely mainly upon an adequate Internet connection, but often have to work without a professional librarian.

While this may work “well”, i.e. with little effect on research output, as in our case, it certainly relies heavily on the services provided by a few professional librarians thinking far beyond their own institution. I see a dangerous trend for a future two-class system of astronomical institutions: those with professional librarians working “behind the scenes,” and those who have to survive without a local librarian.

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