

Focus on sociocultural background and academic training in Science and Cartography

### HISTORICAL BACKGROUND.

Segno a little tiny mountain village of the Val di Non in that part of the Italian Tyrol not too far from the renowned and historical town of Trent. Placed exactly where the valley closed by massive dolomite cliffs, suddenly widens showing to the astonished wayfarers, the stateliness peaks raising from perennial glaciers, and the vastness of green pastures. The village would have probably be similar to many that dot the Walley, if there would have not started the Saga of the great Missionary, Eusebio Chini. Herbert Eugene Bolton, by far the most reputable historian of the western United States, wrote: "Segno is not renowned for its antiquity nor for its archeological treasures, but for the simple reason that within its boundaries it saw the birth of Eusebio Kino, the Jesuit explorer of the Pacific Coast and of Northern Sonora in North America."

At that time of his birth (1645), the awful war, so called "The Thirty years War" which stained Europe with blood from 1618÷1648 was stil raging. The Southern Tirol of Father Kino, at that time was ruled By the Bishop Prince and was not heavily effected by the military operations, however, the population had to pay their indirect tribute of young soldier killed during thirty years of war and the unfailing consequences of hunger and diseases.

We know very little about the the life of the young Eusebio when he was a little boy. We know that he was the only son of the four children of Francesco and Margherita.

Due to the times, despite the welfare and the prominence of his family, he grew up learning to live with limited means and this may have strenghten his body and mind to bear the privation of living in poverty. Then, his parents were able to let him study with private teachers and this provided him a superior cultural preparation. He learnt quickly the basics of mathematics, grammar, history at the college of the Gesuits in Trent.

### AGRICULTURAL BACKGROUND.

The young Eusebio never rejected the peasant culture of the valley and he was trained, by the farmers working for his family, to create and manage cattle breeding and farms which he exploited widely during his presence in the New World. From documents dating back to year 1215, we learn that the agriculture products of Val di Non were grapes and cereals, (wheat, rye, oat, millet) while was also popular among the highlander the breeding of cattle, cows and pigs. Water and pasture were available and for this, the agirculture was profitable to feed and to give income to the families living in teh valley. This situation gave the advantage to Eusebio to acquire the different skills in the different area of the agricultural sciences.

### RELIGIOUS BACKGROUND.

It looks that Eusebio when was a young boy, met with the Missionary Martino while visiting his family. A scene designer that recently wrote a film subject on Padre Kino, imagines Eusebio in his house with his parents, leaning on the table were Martino Martini, visiting them, unrolls a map of Asia at the light of a candle. The boy with his juvenile enthusiasm asks to Martino: "Uncle Martino, could you show me where is China on the map?".

The religious tradition of the family, and later the years spent studying at the Gesuits colleges in Tyrol, increased his religious strenght. In 1661, Eusebio at the age of 16, knew of the sudden dead of Father Martino Martini and this might have had some influence id directing him to be himself a Missionary.

In his diary Eusebio wrote "I have always cultivated a great and special affection regarding the conversion of the great China and on suggestion of my Superiors, I applied myself for studying mathematic sciences, which are widespreaded in that country. At the beginning I asked to be sent to the Missions of the great China, since there had worked and lived in the vineyard of the Lord one of my relatives, father Martino Martini, who wrote the remarkable volumes and geographical maps of the great empire of China tha we know".

The final decision to become a Gesuit came after his serious ilnees and the vow for his recovery. However it easy to think that it was only the final display of his interior sentiments and of an idea that he cultivated during the early years of his studies.

### SCIENTIFIC BACKGROUND.

When studying with the Gesuits, Eusebio, specialized in philosophic and religious studies without abandoning his deep interest for natural sciences. In the 17<sup>th</sup> century many famous European scientist, (among them the most prominent Galileo and Newton) carried out important discoveries. The Gesuits, at the mid of that century, for the benefit of their students, provided their libraries with scientific volumes. Astronomy, was with physics, mathematics, chemistry, botany, among the subjects chosen. At the University of Ingolstadt Eusebio, had the insight to take advantage to learn more in expectation of his future Missionary life and he led a group of students, fond as him of mathematics and astronomy. Actually they converted one of the tower of the building in a small observatory!

He exploited then the new discoveries and then under the guidance of renowned professors of geography and cartography he deepened his studies. It is an interesting fact to know, that when he was in America, he continued to keep in touch with one of them, the geographer Heinrich Scherer, with the purpose to exchange data concerning their scientific researches. the University,

Last but not least, he took advantage of his forced stop in Seville to prepare scientific instruments (especially astrolabes, and compasses) and to learn more about practical agriculture. It is also important to mention, with the aim to explain the profitability of this Spanish presence, his publication on the "Esposicion Astronomica de el Cometa" in 1680.

*sonorensis*, Winter 2007

DRAFT list of chapters/authors  
(boldened = approved by authors)

Working Title: Kino, Culture and the Making of the Sonoran Desert Region  
Approx. 8,500-10,000 words (approx. 32 pages plus cover)

#### **Goals & key points for this issue:**

- That people and culture are part of the landscape we know as the Sonoran Desert—both shaped by it and shaping it.
- To inspire people to live in harmony with the natural world, The Center for Sonoran Desert Studies at ASDM conducts research on and provides educational programs about the natural and cultural heritage of the Sonoran Desert region. Programs also promote knowledge and appreciation of local foods for human health and production techniques that support a healthy environment.
- That the New/Old World diaspora has been creating and recreating the lands and waters of the Sonoran Desert Region for centuries and this can be illustrated through the life and work of Father Kino
- That ASDM has expertise about and is leading research and education on this topic
- That research, conservation, and education are integral to "living in harmony with the natural world".
- That it is important to have colleagues from outside of the Museum (including Mexico) participate in this issue of *sonorensis*
- It is important to offer "stories" and great images to illustrate our main points. Do we need maps?

**Articles lead writer / word count:/**

**Introduction and Early Years (900-1,200 words)**

1. **Introduction: Brusca and Conte/** 3-400 words Why this topic for ASDM? Why now?

2. **Kino/Chini – The Early Years / Conte** in collaboration with Father Kino Family Foundation (Paolo Rossi), Segno, Italy/ 600-800 words

Focus on sociocultural background and academic training in science and cartography. How did his early life experiences in the Old World influence his path in the New World? Give reader a sense of U.S. historical context for comparison.

**Shaping the Region (1681-1711) Kino Legacy in the Sonoran Desert Region: geography, plants, animals and culture /3,500-4,500 words**

3. Introduction – Ethnohistorical background on Kino (and Manje) in the Sonoran Desert Region/ Gabriel Gomez Padilla/600-1,000 words?

This should set stage for natural history articles. Kino's missions are along a transect through some of the most interesting areas in the Sonoran Desert Region and he had a lasting impact on our region—the first major impact of European culture.

Include distinctive Jesuit approach to native peoples, different goals than earlier conquistadors, different process of establishing missions, Kino as “the first ag. extension agent”, cartographer and social scientist.

Include sidebar/timeline.

4. The archaeological record – include discovery & identification of Kino’s bones. ? This could be a sidebar. Author?

5. Land, water, climate – Physical setting, resources and place names - **Debbie Colodner, ASDM**, This could be incorporated into the introduction rather than a stand-alone article. Word count?

6. Kino Among the Opata – **David Yetman, UofA** -6-800 words

7. Kino Legacy in Baja and the Sea of Cortez/**Brusca**/6-800 words – the “discovery” of Baja, the “blue shells” and Kino maps.

8. Kino as the “Agricultural Extension Agent” / “The First Cattleman” - Focus on animals that Kino observed, used or supplanted with introduced domesticated species. How did intro. of domestic animals impact native land use patterns, culture and commerce? / **Diana Hadley, UofA** /6-800 words

9. Ethnobotany A – Native food, fiber, ritual, medicine, shelter. Focus on native plants that Kino observed, used, impacted or supplanted with introduced species. **Richard Felger**/6-800 words

10. Ethnobotany B – Historical background to provide rationale for following article on Kino Heritage Fruit Trees Project. Include Kino’s perspective that you must eat—live well—before being a Christian /**Jesus (ASDM)/Rob Emmanuel/Don Garate/ Bill Dunmire**/3-400 words

**ASDM Projects Today /2,000-2,500 words**

11. Kino Heritage Fruit Trees Project/ **Jesus Garcia (ASDM)and Robert Emanuel.**/ 1500-2,000 words

12. Sea of Cortez & Sustainable Seafood Project/ **Brusca** /600-800 words

## **SCHEDULE**

Sonorensis Schedule 2007

Managing Editor – Christine

Production Manager – Camille

Copy Editor – Linda Brewer

Graphic Designer – Martina Clary

Concept Development/Assignments/Production/Printing & Mailing

Th March 1 Final decisions on chapters, topics and authors

Th March 15 Synopses of articles from authors to managing editor with photo/graphics ideas

**Th May 10 First drafts due to managing editor from all authors**

Tues May 15 Comments back from managing editor to authors

**Fri May 18 Revised drafts from authors due to managing editor**

Mon May 21 Drafts sent to copy editor

Mon May 21 Source material for maps or graphics sent by authors to managing editor

Wed May 30 Printer bids requested (Greg)

**Wed June 20 All images from authors to production manager for review**

Wed June 20 Edited copy to managing editor with notes and questions for authors

- managing editor forwards copy and Qs to authors

- authors reply to copy editor and managing editor

Mon July 16 Final drafts sent to designer with images

- graphic designer and production manager/editor set spread order

- designer works with production manger on early concepts

Fri Aug 24 Preliminary article layout to authors for image relevance & IDs

**Fri Aug 31 All authors comments, captions etc. due to production manager**

Fri Sept 14 Final layout review by copy editor, managing editor, production manager

- adjustments/corrections/etc

Mon Sept 24 Final layout reviews to copy editor for proofing

Mon Oct 1 Approval/corrections from copy editor et al to manager/designer

Thurs Oct 4 Final print-ready layout PDFs of respective articles and contents page

to authors for sign-off - also to copy editor, production manager & etc

Mon Oct 8 ALL sign-offs in

Thur Oct 11 to Printer

Thur Nov 7 Printer delivers to mailing house

Wed Nov 14 Mail house posts **sonorensis**

**In homes Dec 5 or Dec 12 allowing 3-4 weeks bulk delivery.**