



# SANTIAGO, ELQUI VALLEY & THE ATAGAMA DESERT

# October 21-November 2, 2019

Milky Way

WITH **DR. SIDNEY C. WOLFF '62 H'85**, PAST PRESIDENT OF LSST (LARGE SYNOPTIC SURVEY TELESCOPE) CORP. AND **JOEL WEISBERG**, CARLETON PROFESSOR OF PHYSICS AND ASTRONOMY AND THE NATURAL SCIENCES



## Dear Carleton College Alumni & Friends,

I invite you to join us for **Carleton Alumni Adventures' exclusive tour of Chile** to experience the country's spectacular skies, world-class observatories, vineyards, ancient cultures, and richly diverse, legendary landscape. Stargazers have long flocked to northern Chile to probe the heavens: the skies are dark, the air is clean, and the clouds are rare. Attracted by the pristine night skies, the world's astronomers have made northern Chile the primary center for major astronomy research observatories in the Southern Hemisphere. Echoing the stargazers and astronomers, trip participants will themselves watch sunsets, stargaze, and participate in private tours of major observatories.

Our study leaders—an astrophysicist and the first woman to serve as director of a major U.S. observatory, **Dr. Sidney Wolff '62 H'85**; and Herman and Gertrude Mosier Stark Professor of Physics and Astronomy and the Natural Sciences, **Joel Weisberg**, a radio astronomer—will lead us on an adventure that begins in the vibrant cities of **Santiago** and **Valparaiso** before heading north in search of observatories and desert landscapes. Spend two nights in the coastal town of **La Serena** as our base for traveling to the scenic desert mountains of the **Elqui Valley**, visiting the Gemini and LSST telescopes, and experiencing the magic of stargazing in this part of the world.

Our journey culminates in the remote and fantastically beautiful **Atacama Desert**. Covering 40,000 square miles of northern Chile, the Atacama includes coastal plains, high volcanoes, the world's highest geyser basin, spectacular altiplanic lagoons, and state-of-the-art observatories, where we gain special access via Dr. Wolff. These observatories—**Paranal** and **ALMA**—boast some of the largest and most advanced optical and radio telescopes on Earth that promise to revolutionize our understanding of the Universe.

This is a once-in-a-lifetime opportunity to explore these incredible locations, with this combination of Carleton leaders, in the company of fellow Carls. I hope you will contact the Alumni Adventures office today at **carleton@studytours.org** or **(800) 811-7244** to reserve your space.

Sincerely,

Some 22

Derek Fried '93 President, Carleton College Alumni Association



Please visit go.carleton.edu/adventures for details and updates on all of our programs.

### **STUDY LEADERS**



SIDNEY C. WOLFF '62 H'85 most recently led the design and development phase of the Large Synoptic Survey Telescope project. Construction of this facility is currently taking place in Chile. The first woman to direct a major U.S. Observatory (Kitt Peak), she played a leadership role in the development of Mauna Kea, now the premier astronomical site in the northern hemisphere, and was the first director of the international project that built the two state-of-the-art Gemini telescopes, one in Hawaii and the other in Chile. Sidney served on the Carleton College Board of Trustees for 24 years. Her research focused on star formation and evolution, and she has co-authored several textbooks on introductory astronomy.



JOEL WEISBERG is the Herman and Gertrude Mosier Stark Professor of Physics and Astronomy and the Natural Sciences at Carleton College. His research is in the area of radio astronomy, particularly in the study of pulsars. Joel teaches astronomy, astrophysics, and physics courses, and has taught several multidisciplinary courses in the areas of environmental and technology studies and in science policy. He maintains several research positions for students, often enabling them to travel to various radio observatories. Joel and several students built the small Sogn Valley (Minnesota) Radio Astronomy Observatory in the mid-1980s using amateur equipment. He loves to share sunsets and the night sky with others, and has done so on numerous other alumni journeys.



### MONDAY-TUESDAY, OCTOBER 21-22

### Depart U.S. • Santiago, Chile

Fly overnight to Santiago and enjoy a private transfer on October 22nd to the fashionable *Cumbres Hotel Lastarria*, nestled in the historic Lastarria neighborhood surrounded by Santiago's finest shops, restaurants, and museums. Gather for introductions at the hotel followed by a welcome dinner at a nearby restaurant. CUMBRES HOTEL LASTARRIA (D)

#### WEDNESDAY, OCTOBER 23

### Santiago (Casablanca Valley & Valparaiso)

Travel to the Casablanca Valley, one of Chile's renowned wine regions, for a private tour and tasting at Kingston Family Vineyards, pioneers for creating award-winning red wine from a valley famous for whites. Visit the family boutique winery Casas del Bosque for lunch at its famed Restaurant Tanino, considered one of the top winery restaurants in the world. Continue to the bohemian harbor town of Valparaiso for an exploration of its 42 cerros (hills) covered with faded mansions, 19thcentury funiculars, and cobblestone streets. Visit La Sebastiana Museum, former home of Chile's Nobel Prize-winning poet Pablo Neruda. Return to the hotel and enjoy dinner independently at one of Santiago's many fine restaurants.

CUMBRES HOTEL LASTARRIA (B, L)

### **THURSDAY, OCTOBER 24**

### Santiago - La Serena

Following a morning lecture, experience the spectacular sights and colorful culture of

Chile's capital city. Stroll through Santiago's streets, visiting the picturesque Moneda Palace, the colossal Cathedral, and the Chilean Museum of Pre-Columbian Art, home to one of the finest collections of pottery, sculptures, and textiles from Central and South America. In the afternoon, fly to La Serena, Chile's second oldest city, founded in 1544. Check-in to lovely *Hotel Costa Real* before having dinner on La Serena's waterfront. HOTEL COSTA REAL (B, L, D)

#### **FRIDAY, OCTOBER 25**

### La Serena (Elqui Valley and Gemini, LSST, and El Pangue Observatories)

Travel today through the scenic desert mountains to the lush, green Elqui Valley, dotted with picturesque villages and miles of vineyards to make the local Chilean Pisco. Stop at Puclaro Dam, affording impressive valley views, before heading up the long, winding road to the Large Synoptic Survey Telescope (LSST) and Gemini Observatory South. Sidney Wolff led the design and development phase of the LSST project, and she will guide our visit to the LSST, while staff astronomer Bryan Miller '89 will lead our private tour of Gemini. In the afternoon travel deeper into the Elgui Valley, stopping at a distillery for a pisco tasting and the quaint villages of Monte Grande and Pisco Elgui. Following dinner in Vicuña, the birthplace of Chile's Nobel-Prize winning poet Gabriela Mistral, board private vans up to El Pangue Observatory for an evening of stargazing. HOTEL COSTA REAL (B, L, D)

### SATURDAY, OCTOBER 26

### La Serena • Antofagasta

Relax and recover from our long day in Elqui Valley with a free morning in La Serena, known for beautiful beaches and a multitude of belfries. Then take an early-afternoon flight to Antofagasta, a port city in northern Chile. After a city tour, including a visit to La Portada, the most photographed rock arch in the world, check in to the beautiful *Hotel Terrado Suites*, where every room enjoys views of the ocean. Enjoy dinner independently.

HOTEL TERRADO SUITES (B, L)

### SUNDAY, OCTOBER 27

### Antofagasta (Paranal Observatory [VLT])

Embark on a full-day excursion to the Paranal Observatory, home of the VLT (Very Large Telescope) operated by the European Southern Observatory (ESO). Explore Paranal, a state-of-the-art, optical-infrared observatory, including meeting with resident astronomers, during a private, behind-the-scenes tour. HOTEL TERRADO SUITES (B, D)

### **MONDAY, OCTOBER 28**

### Antofagasta • San Pedro de Atacama

Travel by motor coach through the unique Atacama Desert landscape, the driest place on Earth and surreally beautiful, with fiery red canyons, grassy gorges, turquoise thermal lakes, cerulean lagoons, and steaming geysers. En route visit the ghost town of Baquedano, which flourished in the nitratemining boom of the 1860s and faded away



with the advent of synthetic nitrates in the 1930s. Arrive in San Pedro de Atacama late in the day and check in to the *Cumbres Hotel*, our tranquil oasis for the next four nights. CUMBRES HOTEL SAN PEDRO DE ATACAMA (B, L)

### **TUESDAY, OCTOBER 29**

### San Pedro de Atacama (High Andes)

Spend a full day exploring the High Andes, beginning with the Salar de Atacama—the largest salt flat in Chile—surrounded by volcanoes, including Lascar, one of the most active in Chile. Our excursion also includes visits to Laguna Chaxa, a national reservation that three species of flamingo inhabit year-round; the vivid blue waters of the Miscanti and Miñiques lagoons, located at 14,850 feet; and the tiny hamlet of Socaire, where a typical altiplanic lunch will be served. Return to the hotel for some free time and an independent dinner. Night owls participate in an evening of stargazing, this time from the private facility of San Pedro de Atacama Celestial Explorations (SPACE).

CUMBRES HOTEL SAN PEDRO DE ATACAMA (B, L)

### WEDNESDAY, OCTOBER 30

### San Pedro de Atacama (ALMA)

Following a morning lecture, travel to the Atacama Large Millimeter Array (ALMA), a state-of-the-art radio telescope array designed to study millimeterwavelength light from some of the coldest (and oldest) objects in the universe and located approximately 30 miles from San Pedro de Atacama. A brief on-site medical exam is required before being allowed to briefly visit this site at 16,600 feet elevation on the Chajnantor plateau. The setting is other-worldly and unforgettable. (An alternative arrangement is available for those not wanting or able to ascend to high altitude.) Upon returning to San Pedro de Atacama, enjoy lunch at a local restaurant and an afternoon free for individual pursuits.

CUMBRES HOTEL SAN PEDRO DE ATACAMA (B, L)

### THURSDAY, OCTOBER 31

### San Pedro de Atacama (El Tatio Geysers & Moon Valley)

Early risers travel before dawn to El Tatio Gevsers to witness a spectacular sunrise. Located 13,800 feet above sea level, these are the highest geysers in the world. El Tatio is also the third largest geyser site on Earth, with over 80 gurgling geysers and 100 gassy fumaroles. Eat a picnic breakfast as the sun rises over the Andes, and witness the breathtaking sight of the columns of steam rising from the ground. In the afternoon, travel to Valle de la Luna, a geologic wonderland of stone and sand formations, as well as dry lakes and caverns. Enjoy an unforgettable "sundowner" overlooking Valle de la Luna at sunset, when the landscape offers an incredible show of changing colors. Celebrate our journey together with a special farewell reception and dinner followed by stargazing with our study leaders. CUMBRES HOTEL SAN PEDRO DE ATACAMA (B, R, D)

### FRIDAY-SATURDAY, NOVEMBER 1-2

### San Pedro de Atacama • Calama • Santiago • U.S.

After a leisurely morning, fly from Calama to Santiago to connect with overnight flights to the U.S., arriving on November 2nd. (B)

### **PROGRAM RATES**

Double Occupancy (per person)		
30-36 participants	\$7,945	
20-29 participants	\$8,145	
Single Supplement	\$1,445	
(limited availability)		

**ON-TOUR AIRFARE** is not included in the program rates. Round-trip, economy-class airfare for three on-tour flights (Santiago/La Serena, La Serena/ Antofagasta, Calama/Santiago) is approximately \$550 per person as of October 2018 and is subject to change without notice. On-Tour Air will be purchased on your behalf and billed when final payment is due.

#### **INTERNATIONAL AIRFARE: U.S.**

domestic and International air is not included in this program. AirTreks can help with airline arrangements for this trip and can be reached at 1-800-AIRTREKS or 415-977-7171. You are also welcome to book your air transportation through your local travel agent, an online travel site, or the airline of your choice.

#### **PROGRAM RATES INCLUDE:**

Educational program by Carleton College study leaders and local experts including briefings, lectures, and presentations • All accommodations and meals as outlined in the itinerary (B=breakfast, L=lunch, R=reception, D=dinner) • Guaranteed early check-in on arrival day in Santiago • Private arrival transfer • Group departure transfer from San Pedro de Atacama to the Calama Airport on November 1, 2019 • Excursions as specified in the itinerary • Entrance fees • Gratuities to housekeeping, porters, tour manager, drivers, and guides • Freeflow house wine, beer, and soft drinks with welcome and farewell dinners • One glass house wine, beer, or soft drink with other group lunches and dinners Bottled water on motor coaches Baggage handling • Pre-departure materials, including travel information • Professional tour manager

WHAT TO EXPECT: This is a moderately active program that includes a few walks of up to one mile on sometimes uneven terrain and being outdoors for several hours at a time in the dry, arid climate. The weather in October will be pleasant with little or no chance of rain, particularly in the Atacama Desert. Temperatures range from highs in the mid-70s F to lows in the high-30s. Temperature variations in Chile are largely elevation-based, with higher elevations noticeably cooler than at sea level.

Please be aware that considerable time is spent between 7,500 and 9,000 feet

and there are several excursions where participants will be at elevations between 10,000-16,600 feet for shorter periods of time. Anyone with difficulty walking, or with a medical problem that might be adversely affected by high altitudes, should not consider this program. If there is any doubt about your ability to be at these altitudes please consult with your physician before signing up for this program. Participants with medical issues and/or dietary restrictions must make them known to us well before departure, and impairments regarding mobility must be disclosed prior to booking. If you have any questions about the level of activity of this program or your ability to participate, please call Criterion Travel at (650) 328-2089.

### **GENERAL** INFORMATION

#### **PROGRAM RATES DO NOT**

**INCLUDE:** Domestic and international airfare • On-tour airfare • Medical expenses and immunizations • Passport/ visa expenses • Optional excursions or deviations from the scheduled tour • Excess baggage charges • Travel and trip cancellation insurance • Meals not specified in the itinerary; food and beverages not part of the included meals Personal items such as telephone, internet and fax, laundry, room service, alcoholic or other beverages not specified as included • Gratuities for non-group services • Other items of a personal nature

#### A NOTE ABOUT COSTS: Tour

costs are based upon current airfares. fuel prices, taxes, tariffs, and a minimum number of participants. While we will do everything possible to maintain the listed prices, they are subject to change. If there are significant changes, details and costs will be advised prior to departure.

#### **TRAVEL INSURANCE:** Trip

cancellation/interruption, medical, emergency medical evacuation, and baggage insurance are highly recommended and should be considered for your protection. An application will be sent to confirmed participants.

**GROUP SIZE:** This Carleton-exclusive program is limited to 36 participants.

### **TERMS & CONDITIONS**

**RESERVATIONS & PAYMENTS: A** deposit of \$1,500 per person is required to confirm a reservation. You may reserve space immediately by contacting Carleton College Alumni Adventures at (800) 811-7244 or carleton@studytours. org. Or you may send the completed reservation form with your deposit payment (check payable to Criterion Travel, or credit card information) to Carleton College Alumni Adventures.

P.O. Box 938, 47 Main Street, Suite One, Walpole, NH 03608. Final payment deadline is Monday, June 24, 2019, and can be made by check or credit card.

### **CANCELLATIONS & REFUNDS:**

Refunds, less a cancellation fee of \$500 per person, will be made if Carleton College Alumni Adventures is notified on or before June 24, 2019, 120 days prior to departure. No refunds will be granted after that date. All cancellations must be in writing. Refunds cannot be made to participants who do not complete the tour for any reason at all. We reserve the right to require any participant to withdraw from a tour at any time at his/ her own expense, when such action is determined by tour staff to be in the best interest of the health, safety, or general welfare of the tour group or the individual participant, and subject only to the requirement that the recoverable portion of the tour price that corresponds to the cost of unused services and accommodation be refunded, if any. If the program is cancelled by Carleton College Alumni Adventures or our tour operator, you will receive a full refund, without further obligation on our part. No refunds will be made for any part of this program on which you choose not to participate. Neither Carlton College Alumni Adventures or Criterion Travel, the tour operator, accepts liability for any airline cancellation penalties incurred with the purchase of a nonrefundable ticket in conjunction with this tour.

### **ITINERARY CHANGES:** The itinerary

and study leaders presented for this tour are subject to modification and change by Carleton College Alumni Adventures and Criterion Travel. Every reasonable effort will be made to operate the program as planned; however, should unfavorable weather and/or unforeseen world events and conditions require the itinerary to be altered, Carleton College Alumni Adventures and Criterion Travel reserve the right to do so for the safety and best interest of the group. Any extra expenses incurred in this situation are the responsibility of the participant.

**RESPONSIBILITY:** Complete Terms & Conditions will be sent to participants upon confirmation and are available to prospective travelers upon request. As a condition of participation, each passenger will be required to sign a Release of Liability, which will be sent along with the Terms & Conditions.

California Seller of Travel Program

#### CST #2088800-40

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**RESERVATION FORM** Moon Valley Atacama Deser

### CHILE: October 21-November 2, 2019

To reserve your space, please complete this form and send it to: Carleton College Alumni Adventures, P.O. Box 938, 47 Main Street, Suite One, Walpole, NH 03608. Deposit checks should be made payable to Criterion Travel. You may also call Carleton College Alumni Adventures at 800-811-7244 or (toll) 603-756-4844. Fax: 603-756-2922. Email: carleton@studytours.org. Website: go.carleton.edu/adventures.

#### **CONTACT INFORMATION** (please print)

NAME #1		CARLETON CLASS
NAME #2		CARLETON CLASS
STREET ADDRESS		
CITY / STATE / ZIP		
HOME PHONE	CELL PHONE	
FAX	EMAIL	

Are you traveling with any other parties on this program?

Yes.

#### **PAYMENT INFORMATION**

Enclosed is my check for \$ (\$1,500 per person, payable to Criterion Travel), to reserve place(s) on Chile: Earth & Sky.

OR

Charge the deposit to: VISA MC AmEx Discover

NAME ON CREDIT CARD	CREDIT CARD #	CREDIT CARD #	
CARDHOLDER SIGNATURE	EXP. DATE	SECURITY CODE	

#### ACCOMMODATIONS

Bed preference in hotels (not guaranteed) □ KING/QUEEN □ TWINS

#### SINGLE TRAVELERS (Choose one)

I prefer to have single accommodations.

□ I will share accommodations with:

I'd like to know about roommates.

I am a 🛛 Non-smoker 🖓 Smoker.

I understand that if a roommate cannot be found by the final payment deadline of June 24, 2019, I will pay the single rate.

I/We have read the Terms and Conditions section of this brochure and understand and agree with them as stated therein.

SIGNATURE SIGNATURE

DATE DATE WITH **DR. SIDNEY C. WOLFF '62 H'85**, PAST PRESIDENT OF LSST (LARGE SYNOPTIC SURVEY TELESCOPE) CORP. AND **JOEL WEISBERG**, CARLETON PROFESSOR OF PHYSICS AND ASTRONOMY AND THE NATURAL SCIENCES

CHILE: EARTH & SKY

October 21-November 2, 2019



Vicuña

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P.O. Box 938, 47 Main Street, Suite One, Walpole, NH 03608

# Highlights

- Gain special access to THREE of the world's most advanced observatories: Gemini South, the twin to Gemini North located on Mauna Kea, that together provide full coverage of the skies over both hemispheres; Paranal, an opticalinfrared observatory; and Atacama Large Millimeter Array (ALMA), a giant array of radiotelescopes.
- Sample great wine and food in Casablanca Valley, Chile's acclaimed wine region; ride the 19th-century funiculars up the hills of the bohemian town of Valparaiso; and experience the colorful culture of Santiago, Chile's capital city.
- View Chile's famed night skies during three special evenings of curated stargazing with telescopes, one in the Elqui Valley at El Pangue Observatory and two additional opportunities in the middle of the Atacama Desert.
- Spend three days exploring the vast and beautiful Atacama Desert, including the High Andes altiplanic lagoons, sunrise at El Tatio Geysers, and a memorable sundowner overlooking the spectacular Valle de la Luna.

