

Potato
(*Solanum tuberosum*):
Apple of the Earth

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November 15, 2019 – March 17, 2020
Stephen and Peter Sachs Museum



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Nezka Pfeifer
Museum Curator
Stephen and Peter Sachs Museum

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Forward
Peter Wyse Jackson, PhD
President
Missouri Botanical Garden



♦ *Instant Potato, 1-4 (Detail)*
Seamus O. Hames
2019
Courtesy of the artist

I am delighted to welcome you to this exhibition, *Potato (Solanum tuberosum): Apple of the Earth*, at the Missouri Botanical Garden's Stephen and Peter Sachs Museum.

The Potato (*Solanum tuberosum*) is one of the world's most important food crops, fourth only in terms of worldwide production behind corn (maize), wheat (2) and rice (3). It is widely cultivated throughout the world as a versatile, nutritious, and easily cultivated crop, and it is a staple food in many countries. Botanically, it is a herbaceous perennial plant that belongs to the Solanaceae family, the nightshades, which also includes other important food plants, such as tomato, eggplant (*Aubergine*), bell and chili peppers, as well as tobacco. There are also some remarkably toxic plants in the Solanaceae which contain a range of harmful alkaloids.

The potato is native to the high Andean mountains of South America, where it was a staple food for the Incas for several hundred years before the Spanish conquistadors arrived. The Inca civilization was built not on the treasures for which they are best known—gold and silver—but instead on two natural treasures that they have passed on to the modern world: potatoes and corn (maize). In the Andes, the Incas used as many as eight potato species as food, but only one of them—*Solanum tuberosum*—has become established as a modern day global food crop.

China is the largest worldwide producer of potatoes, yielding 99 million tons in 2017 (UN FAO, 2017 figures), ahead of India, Russia, Ukraine, and the United States. In 2017, the U.S. produced approximately 20 million tons of potatoes.

Growing up in my native Ireland, we always regarded potatoes as the archetypal Irish vegetable, but we knew little about its origins and history, except that it was a contributing factor to Ireland's worst-ever humanitarian and ecological disaster: the Great Potato Famine in the 1840s. That decade the potato crop failed across the island, hit by a new potato blight caused by the fungus *Phytophthora infestans*, resulting in the death of more than a million people due to starvation or related disease and the emigration of a million, many to North America. The Great Famine (or, in Irish, *an Gorta Mór*, or 'the Great Hunger') changed Ireland forever.

The potato was introduced to Europe from South America several centuries ago. It is thought that the potato was probably first carried to Europe in the 16th century by the Spanish, likely as early as the 1530s. They were first cultivated in Spain and then gradually spread from there into other European countries. Potatoes were certainly being grown by the first settlers in Virginia in North America before 1585, and Sir Frances Drake brought potatoes to England when he returned from his voyages in 1580.



● Evans Gallery
Installation View

● Potato serving dishes
Ceramic and silver
ca. 19th and 20th century
Collection of Dr. Peter
Wyse Jackson

This single plant species, the potato, has had a remarkable impact on so many aspects of our lives, on history, landscapes, economy, culture and traditions. Worldwide there are more than 5,000 different known potato varieties (cultivars) known, of which some 3,000 are (or were) grown in the Andes. Nevertheless, more than 99% of all potatoes cultivated today are derived from a subspecies (*Solanum tuberosum* subsp. *tuberosum*) that is indigenous to southwest Chile, where it has been cultivated in the Chiloé Archipelago for as long as 10,000 years. The Andean subspecies is *S. tuberosum* subsp. *andigena*.

When I was growing up in Ireland, a meal was not really regarded as complete unless potatoes were included in one form or another. Today in the United States, many count potatoes among their favorite foods, whether as French fries, chips, dumplings, or hash browns, or mashed, boiled, baked, or prepared in a myriad of other forms and recipes.

I hope that you will enjoy this exhibition as a fascinating exploration of a remarkable plant species and one of our most important global treasures of the plant kingdom. The next time you enjoy a potato for your dinner, look on it with new respect! The so-called 'humble potato', is not so humble after all!

- Potato skib
Bolivia
Ca. 20th century
Courtesy of Dr. Peter Wyse Jackson Collection

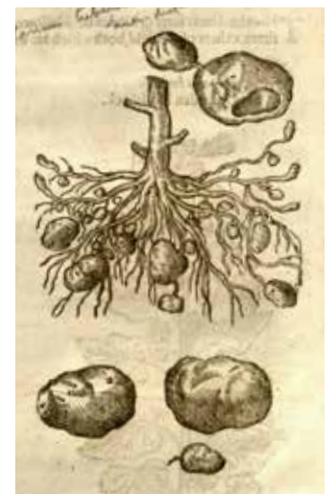
- Woman Selling Potatoes in Market
La Paz, Bolivia
Digital photograph
ca. November 19, 2012
Courtesy of Olga Martha Montiel





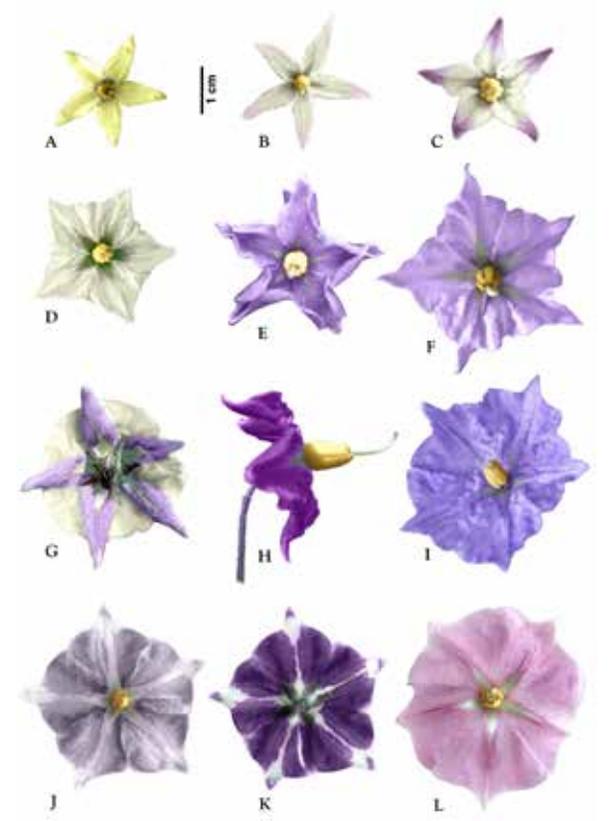
- *Solanum tuberosum* L.
Germany
Courtesy of the Herbarium
[1815508]

- Virginia Potatoes
The Herball or the
Generall Historie of Plantes
ca. 1636
Courtesy of the Raven Library



- Corollas of *Solanum* sect. *Petota* from Mexico and Central America

- A. *Solanum bulbocastanum*
- B. *Solanum stenophyllidium*
- C. *Solanum clarum*
- D. *Solanum polyadenium*
- E. *Solanum verrucosum*
- F. *Solanum stoloniferum*
- G. *Solanum stoloniferum*
- H. *Solanum hjertingii*
(side view showing long, exerted, curved style)
- I. *Solanum agrimonifolium*
- J. *Solanum hougasii*
- K. *Solanum hougasii*
- L. *Solanum xedinense*



Courtesy of Dr. David Spooner



MISSOURI
BOTANICAL GARDEN
HERBARIUM



No. 6606805



SOLANACEAE PERU MM 430
Solanum tuberosum L.

La Libertad: Bolivar

Districto Uchumarca. Near town of Uchumarca, fields.

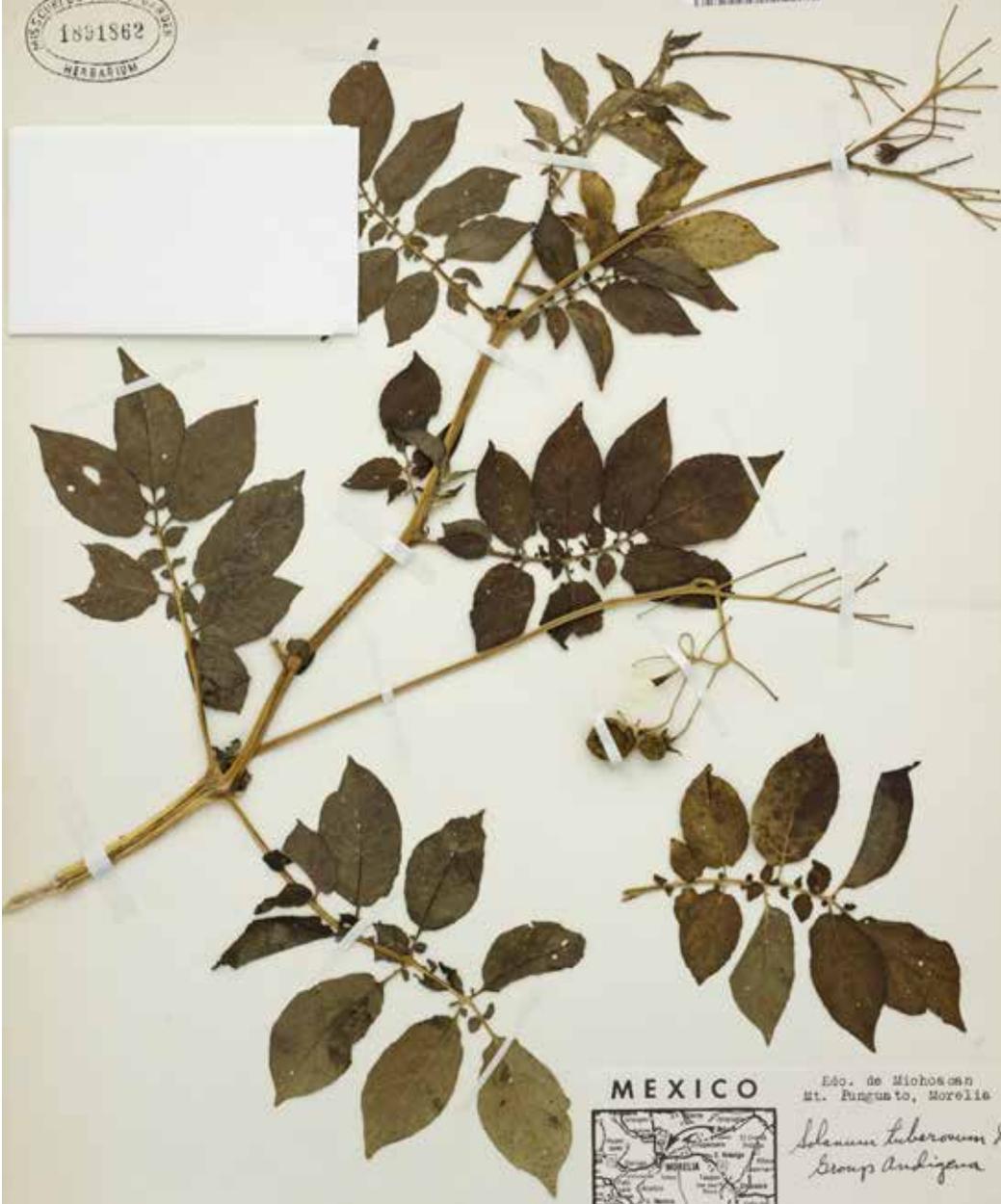
07°02.635' S 77°48.233' W 2804 m

1 m tall herb with purple flowers.

Common name: Papa Blanca

Medicinal uses: gynaecological, urological

28 October 2010
N. Monigatti & F. Diaz V.
MISSOURI BOTANICAL GARDEN HERBARIUM [MO]



MEXICO

Edo. de Michoacan
Mt. Angusto, Morelia



Solanum tuberosum L.
Group Andigena

Probably
Solanum tuberosum L. s. *retisp.*
andigena (Poe. et Buk.)
H. G. Gentry
Determined by J. G. Slinko 1986

S. slope: st moist base, weedy cornfield and bordering rock piles, 2120 m; steep, rocky, xerophytic zone with giant *Quintia* sp. and *Solanum tuberosum*, 2185 m; and, with *S. polyadenium*, 2200 m.
W. slope: small relatively undisturbed field between cornfields, with bunch grasses and scattered *Acacia* & *Quintia*, 2120 m; roadside, weedy cornfield with putative hybrid *Solanum stoloniferum* & *S. tuberosum*, 2130 m; putative hybrid with non-tuberosum *Solanum* sp. colonizing steep slope below road, 2150 m.
Sep. 10, 1962 D. & V. Ugent and R. Flores G. No. 1795

42-583





- PAGE 8
Solanum tuberosum L.
Peru
Courtesy of the Herbarium
[6606805]

- PAGE 9
Solanum tuberosum
subsp. *andigena*
(Juz. and Bukasov) Hawkes
Andean Potato
Mexico
Courtesy of the Herbarium
[1891862]

- PAGES 10-11
Evans Gallery
Installation View

- Evans Gallery
Installation View



- Mr. and Mrs. Potato Heads
Hasbro, Inc.
ca. 21st century
Collections of Lisa Good,
Nora Neely, Dr. Peter
Wyse Jackson



- *The Sea Gull*
Seamus O. Hames
2013
Courtesy of the artist

- *Famine*
Dornith Doherty
2009
Courtesy of the artist

- *Then and Now, Potato Diversity and the Irish Diaspora*
Dornith Doherty
2011
Courtesy of the artist

- *No Need Apply*
Corina Kennedy
2019
Courtesy of the artist





- *Famine*
Dornith Doherty
2009
Courtesy of the artist

- *Then and Now, Potato Diversity and the Irish Diaspora (Details)*
Dornith Doherty
2011
Courtesy of the artist

Famine and Then and Now, Potato Diversity and the Irish Diaspora are digital collages made from x-ray images of blight-resistant potato clones I encountered in the United States' national seed bank in Fort Collins, Colorado.

Both *Then and Now, Potato Diversity and the Irish Diaspora* and *Famine* are inspired by my own family's history of displacement caused by the Irish potato famine. One cause of the famine in Ireland was the lack of biodiversity in the potato crop. The scroll was created for an exhibition in Liverpool, England, and traces the line between this important site for Irish immigration and my current home in Texas.



As an Irish-American, the potato has been important in my life, as I grew up eating mashed potatoes for dinner made lovingly by my mother, and, on special occasions when we went out to eat, French fries! I have always loved the vegetable, and have learned a great deal about it since that time. I am fascinated by its historical cultivation in places like the Aran Islands, where people for centuries lived on inhospitable rocks in the sea, dragging up sand and seaweed and combining them to create soil in which to grow their potatoes. And of course, without the Potato Famine of the 1840s, I would likely not be here today. I see the potato, therefore, as a symbol of nature as well as a symbol of man's attempt to harness it—and within this combination of forces there exists a balance perfectly encapsulated in my mind by the shape of the simple, humble tuber.

In this series, I have combined my love of watercolor washes with my love for the potato, and sought to express that perfect simplicity and balance that I see in both. The paintings, called *Instant Potato 1-4*, to refer to the immediacy of the medium of watercolor and its instant gratification while painting (the paintings were done at once and very quickly, the speed of execution being a wonderful characteristic of the watercolor) and also to the boxes of instant potatoes that you can buy at a grocery store, which brings to mind again the humble, salt-of-the-earth, “lowly” aspect of the food. It is meant as a tribute to the subject and to the medium, and I hope I achieved my goals.

- *Instant Potato 1-4*
Seamus O. Hames
2019
Courtesy of the artist



No Need Apply is an index of potatoes that explores the parallels between agriculture and employment and their processes of selection. A visual study in monocultures through monoprints, this project looks at ways that crops and workers are picked and granted, limited and denied. The work's title makes reference to "No Irish Need Apply," anti-Irish job discrimination signage of the 19th century following the Great Famine.

Each poster in this series is a unit of measurement: the number forms determined by the contents of one "sack" of potatoes. As a crafting activity, potato printing involves carving a form into a halved potato to create a stamp. For this piece the process omits any carving, so it retains its original, pure potato, form. All halves are printed side by side, in multiple tonal variations by applying different degrees of pressure and amounts of ink. Out of these hundreds of applications, only two monoprints are selected for each potato, which are then scanned and digitally collaged to create a final layout. The black of the ink is both a reference to fingerprinting as it relates to documented work, and to the blackening process of blight.

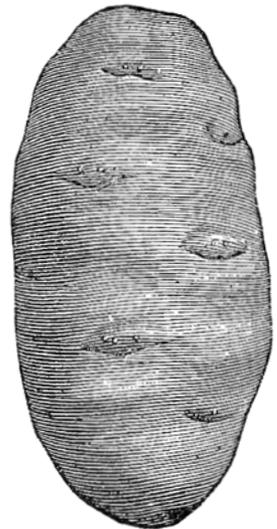
● *No Need Apply* (Detail)
Corina Kennedy
2019
Courtesy of the artist

● FRONT COVER
No Need Apply
Corina Kennedy
2019
Courtesy of the artist



The potato is the most important non-cereal food crop in the world, ranking fourth after rice, wheat, and maize.

As a significant part of the diet of over 1.5 billion people, the potato is not so humble a spud after all. This exhibition at the Sachs Museum highlights the botany, history, and contemporary art focused on this underestimated tuber around the globe.



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