

FROM FLOWERS TO PHOTONS: FROM THE GROUND UP A TALK IN MEMORY OF JANET

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Özet

Hayatının son yılına kadar Janet ile tanışmamış olsam da, hemen iyi arkadaş olduk; astronomi aşkı kadar çok olmasa da nerdeyse ona eşit çiçek tutkusu. David ona bizim gözlemimizi gösterdiği zaman, çöl evimizdeki doğal çiçeklerin çeşitliliği takdir etmek için her duruşunda hayretini paylaştım. Birgün çiçekler ve evren aşkını ilişkilendiren bir proje yapma istediğini anlattı. Janet'in onuruna, atomların ve doğanın karşımıza çıkardığı ilginç tesadüflere bir bakmayı öneriyorum: Yer'deki bir karahindiba ve gökyüzündeki Akrep takım yıldızı; bize Messier 80 deki bir uzun süreli novayı hatırlatan ve sadece bir günlüğüne açan bir çiçek; uzak galaksilerin bazı geniş yapılarını taklit eden diğer küçük çiçek tasarımları.

Abstract

Although I didn't meet Janet until the last year of her life, we immediately became good friends-- not so much for her love of astronomy but for her almost equal passion for flowers. As David showed her our observatory complex, I shared her amazement as she stopped over and over again to admire the diversity of natural flowers in our desert home, and she told me of her interest in doing a project-- some day-- relating her two loves of flowers and the universe. In her honor, I offer a look at the amazing coincidences that atoms and Nature can come up with-- a dandelion on Earth and Scorpius in the sky, a flower blooming for only a day to remind us of a long-gone nova in Messier 80, and other tiny flower designs that mimic some of the vast structures of distant galaxies.

I. Flowers and the Universe

It is almost impossible to take a project designed as a lecture presentation, that included a slide presentation set to music, and turn it into a paper. What I have decided to do is to offer a selection of photographs from the presentation for use in these Proceedings.

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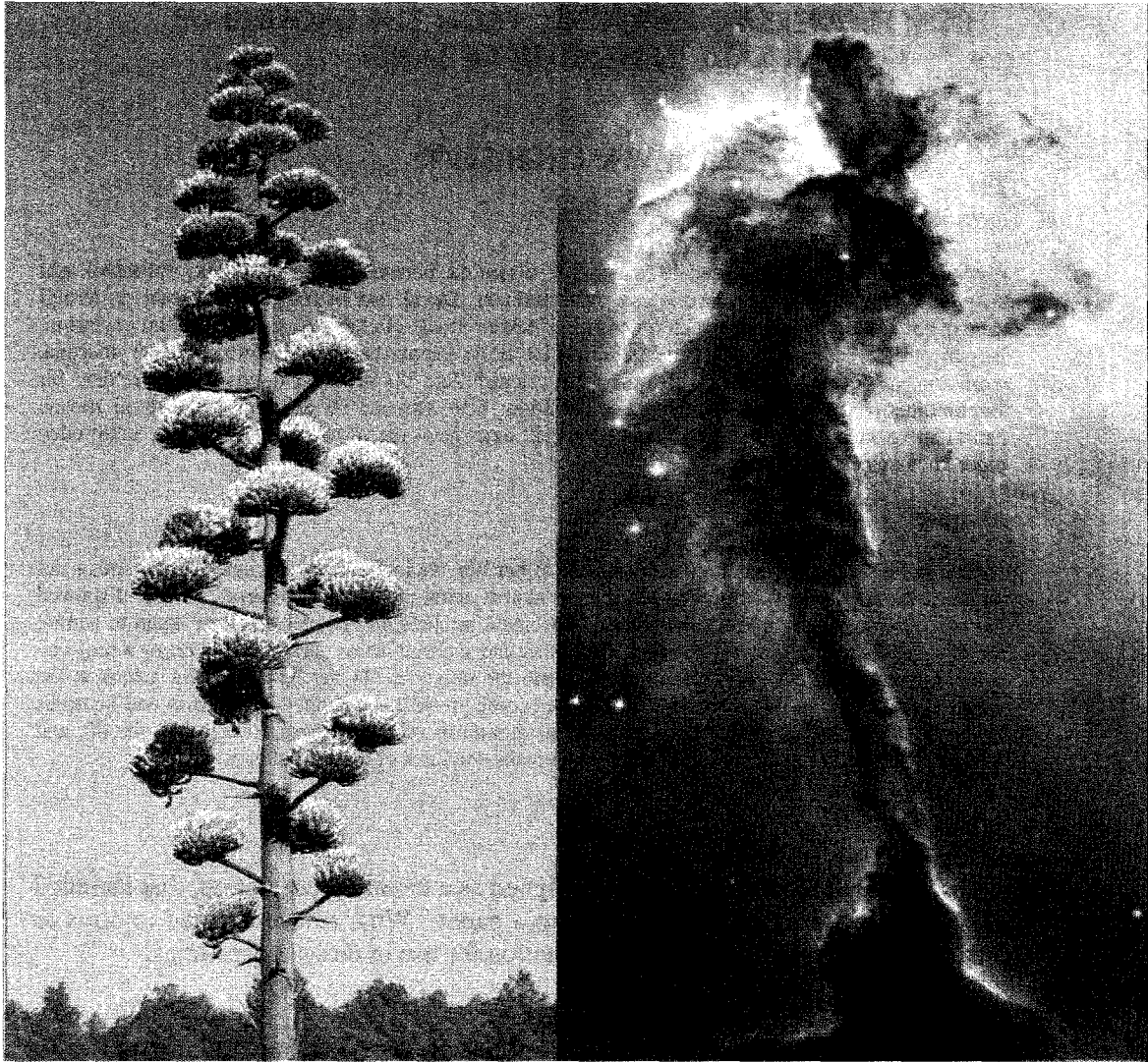


Figure 1: Janet loved seeing the relationship between the tiniest flowers on Earth and the grandest objects in space. At left is my picture of a century plant in bloom, a rare event that takes place once in 25 years and results in the death of the plant even as others are born from it. At right is the HST image of the pillars of creation in M16, also a rare event that results in the death of the nebula even as stars are born from it.

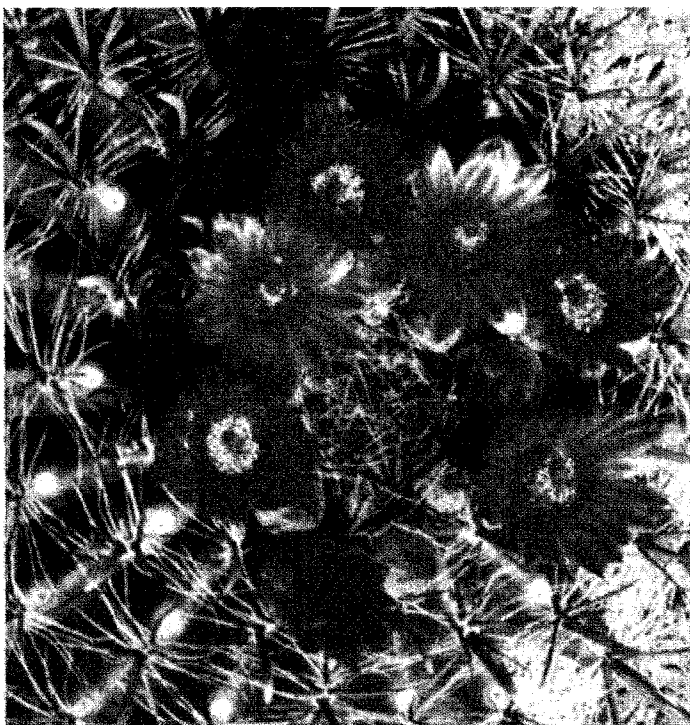


Figure 2a: The top of a barrel cactus in bloom.

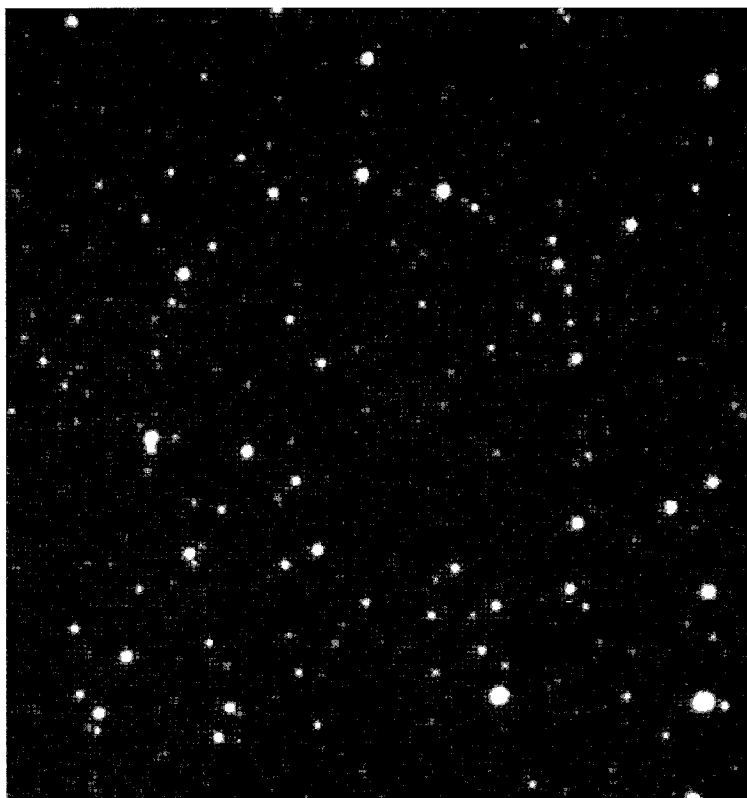


Figure 2b: Levy 69—an asterism shaped in the shape of a ring.

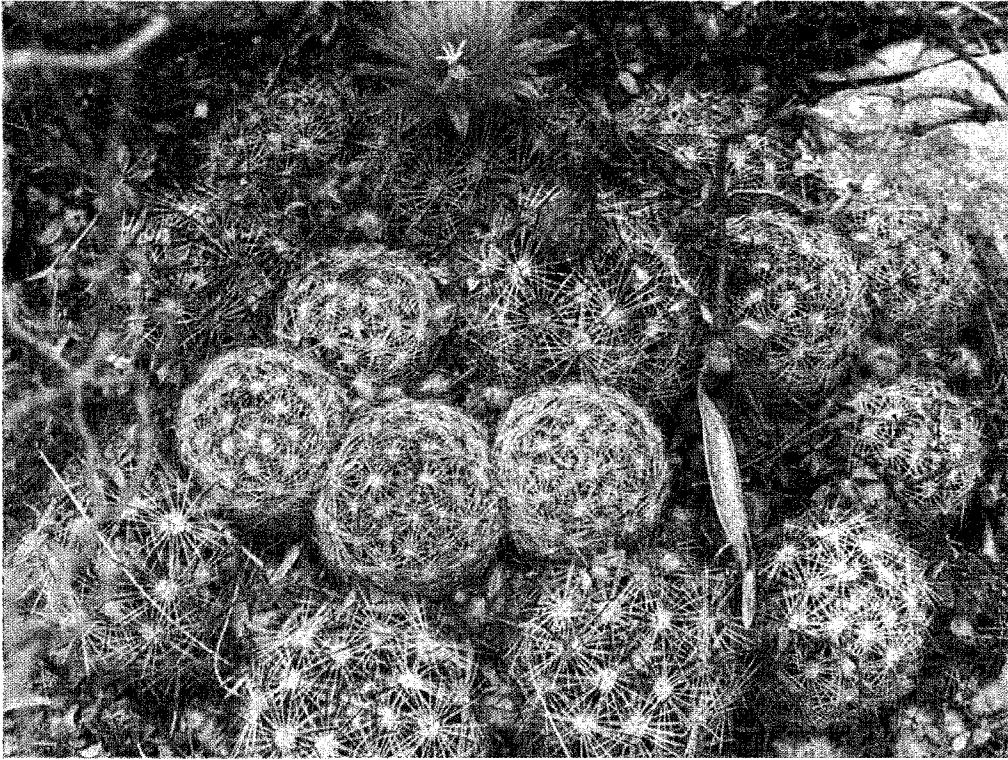


Figure 3a: A mammalaria cactus cluster with a single flower.

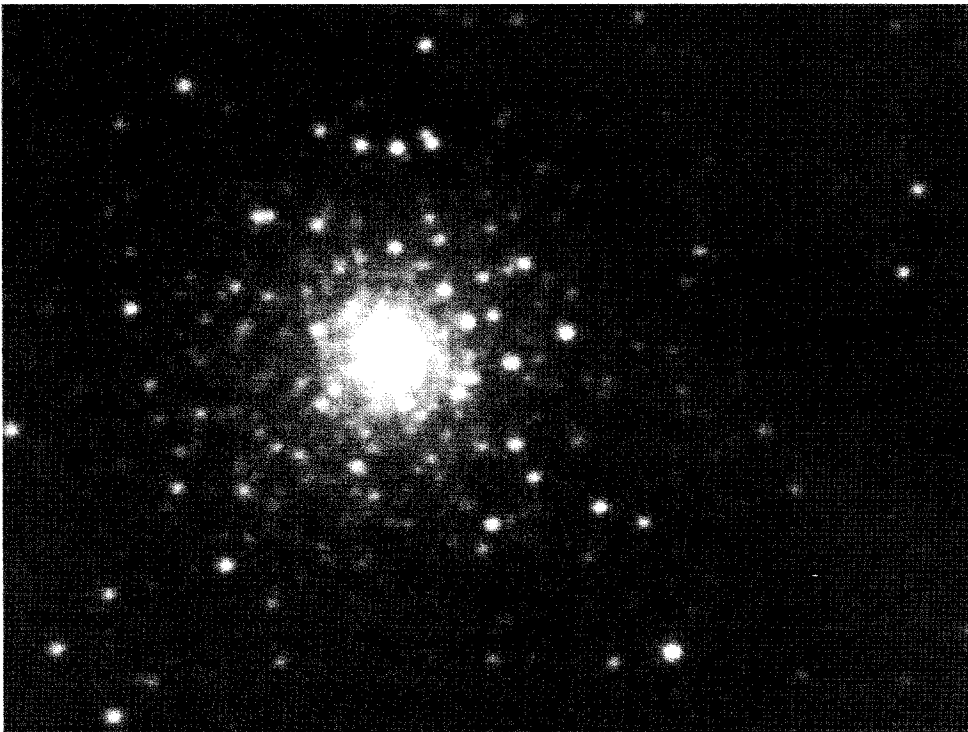


Figure 3b: M80, photographed by David H. Levy. On May 21, 1860, the Dutch astronomer Arthur von Auwers discovered T Scorpii as it flared from the M80's core. Outshining the entire cluster in brightness for less than a week, it then faded.



Figure 4a: A Dandelion, photographed at the Adirondack Science Camp in August 2004.



Figure 4b: Scorpius. Photo by David Levy.