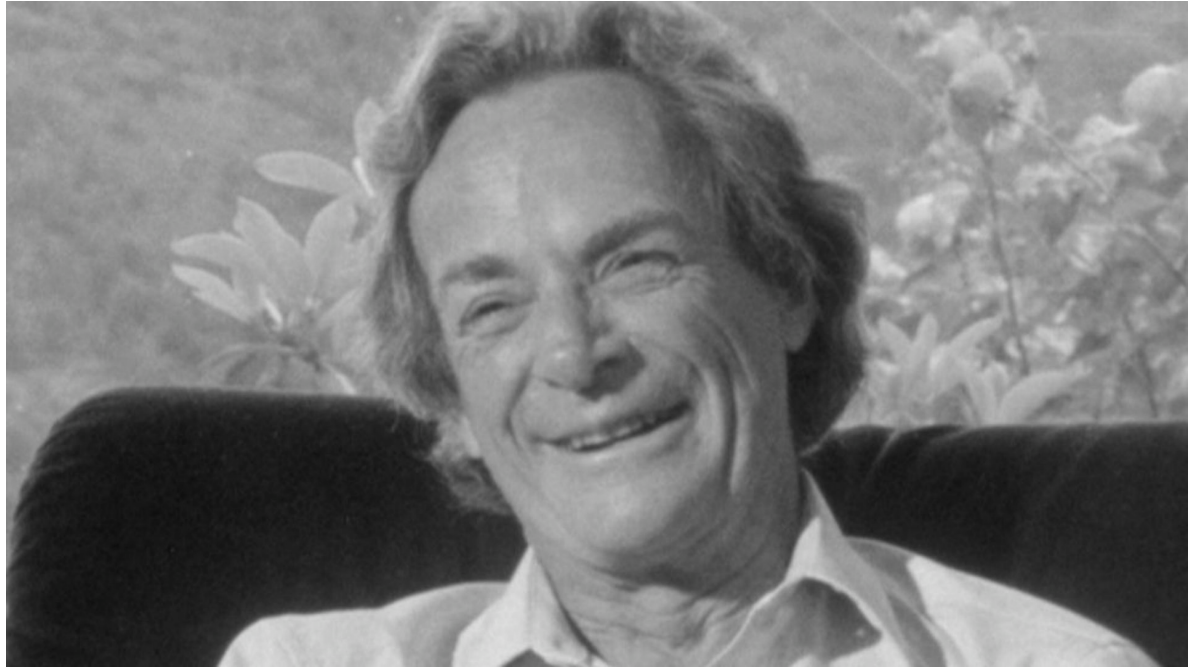


Walt Whitman, photographed by Matthew Brady, ca. 1860–1865

When I heard the learn'd astronomer,
When the proofs, the figures, were ranged in columns before me,
When I was shown the charts and diagrams, to add, divide, and measure them,
When I sitting heard the astronomer where he lectured
 with much applause in the lecture room,
How soon unaccountable I became tired and sick,
Till rising and gliding out I wander'd off by myself,
In the mystical moist night-air, and from time to time,
Look'd up in perfect silence at the stars.

From *Horizon* (1981)



Richard P. Feynman, appearing on Horizon, BBC documentary series, first aired November 23, 1981

I have a friend who's an artist
and has sometimes taken a view which I don't agree with very well.
He'll hold up a flower and say, "Look how beautiful it is," and I'll agree.
Then he says, "I, as an artist, can see how beautiful this is
but you, as a scientist, take this all apart and it becomes a dull thing."
And I think that he's kind of nutty.
First of all, the beauty that he sees is available to other people and to me too, I believe.
Although I may not be quite as refined aesthetically as he is,
I can appreciate the beauty of a flower.
At the same time, I see much more about the flower than he sees.
I could imagine the cells in there, the complicated actions inside, which also have a beauty.
I mean it's not just beauty at this dimension, at one centimeter;
there's also beauty at smaller dimensions, the inner structure, also the processes.
The fact that the colors in the flower evolved in order to attract insects to pollinate it
is interesting; it means that insects can see the color.
It adds a question: does this aesthetic sense also exist in the lower forms?
Why is it aesthetic?
All kinds of interesting questions
which the science knowledge only adds to the excitement,
the mystery and the awe of a flower.

It only adds.
I don't understand how it subtracts.