

ASTROBIOLOGY: THE GRAPHIC HISTORY SERIES



1
00:00:01,000 --> 00:00:04,160
[Music, Page turning sounds]

2
00:00:34,500 --> 00:00:39,360
My name is Aaron Gronstal, and I work for
the Astrobiology program office at NASA.

3
00:00:39,500 --> 00:00:43,060
Let's see, my background's in Geomicrobiology, I did kind of...

4
00:00:43,060 --> 00:00:47,400
start with NASA as a scientist and then kind of developed into other things.

5
00:00:47,560 --> 00:00:51,080
I've been drawing pretty much all my life. My mother is a visual artist.

6
00:00:51,320 --> 00:00:54,140
She does a lot of work in inks and watercolors.

7
00:00:55,100 --> 00:00:57,100
I was kind of just self-taught.

8
00:00:57,100 --> 00:01:01,580
I did kind of joke that like I finished my
my PhD in Geomicrobiology

9
00:01:01,589 --> 00:01:04,530
and then went back to being a 14-year old in my pajamas drawing

10
00:01:04,530 --> 00:01:06,200
[laughing] comics in my bedroom.

11
00:01:08,280 --> 00:01:11,640
Comic books were definitely kind of one of my dreams growing up.

12
00:01:12,640 --> 00:01:16,840
Astrobiology is
the study of the origins of life on Earth,

13

00:01:16,960 --> 00:01:18,700

and the potential for life
elsewhere,

14

00:01:18,700 --> 00:01:21,420

and that includes a wide range

15

00:01:21,420 --> 00:01:24,040

of different disciplines and scientists and...

16

00:01:24,420 --> 00:01:26,100

and different scientific questions and

17

00:01:26,100 --> 00:01:30,869

the graphic histories were just a good
way to kind of gather all of those

18

00:01:30,869 --> 00:01:34,590

disciplines and those individuals
together and present the content in a way

19

00:01:34,590 --> 00:01:37,720

that was more accessible to the
general public, I think.

20

00:01:38,820 --> 00:01:41,080

Like, the idea is that you should be able to

21

00:01:41,220 --> 00:01:43,840

to look at the page without any text,

22

00:01:44,340 --> 00:01:45,880

and get a story out of it.

23

00:01:46,660 --> 00:01:48,940

And you should be able to look at the text
and get a story out of it,

24
00:01:49,000 --> 00:01:52,420
and they're not necessarily,
they're telling the same thing from different angles.

25
00:01:52,780 --> 00:01:55,920
Sometimes without
even realizing it, you're digesting

26
00:01:55,920 --> 00:01:58,900
the same information in two different ways
at the same time and,

27
00:01:59,060 --> 00:02:02,020
it can be a really powerful teaching tool.

28
00:02:02,860 --> 00:02:05,180
Once the
script is all together I sit down and

29
00:02:05,180 --> 00:02:11,320
and start the actual drawing, and I work
in pencil and ink by hand.

30
00:02:11,920 --> 00:02:16,580
A lot of people work purely digitally but I do, you know, pen on paper

31
00:02:16,590 --> 00:02:18,140
up through the inking stage.

32
00:02:18,140 --> 00:02:20,910
I work first in blue pencil and then pencil on top of that,

33
00:02:20,910 --> 00:02:22,660
and then inking the pencils.

34
00:02:22,660 --> 00:02:24,330
By doing a blue pencil you can kind of get

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00:02:24,330 --> 00:02:26,560
the sketchy outline of things to begin with.

36
00:02:27,370 --> 00:02:31,680
Then, once you scan, adjust the contrast,
and make those lines disappear so then

37
00:02:31,680 --> 00:02:33,800
you can just pull out the ink work at the end.

38
00:02:34,660 --> 00:02:37,580
And then that goes in the computer
and all the coloring takes place there.

39
00:02:40,120 --> 00:02:43,765
Once the layouts are complete, I get all the kind of digital files together,

40
00:02:43,765 --> 00:02:47,640
and those go off to the printer, and then
we start getting proofs from the printer,

41
00:02:48,240 --> 00:02:50,240
and approving the actual final product.

42
00:02:56,280 --> 00:02:58,980
It's been really nice to kind of do this and

43
00:02:59,000 --> 00:03:01,900
have people appreciate it and enjoy being in it and

44
00:03:01,900 --> 00:03:03,480
which is one one reason like we go and

45
00:03:03,480 --> 00:03:06,500
get permissions from everybody. Like, I
want the scientists to enjoy this.

46
00:03:06,580 --> 00:03:10,380
I want them to look at this and go like,

"Ahh" you know, "there I am as a cartoon!"

47
00:03:10,380 --> 00:03:14,180
and that kind of thing and it's great that
it's gone over so well with the science community.

48
00:03:14,260 --> 00:03:16,860
One of my favorite things
with it as an outreach tool has been

49
00:03:16,870 --> 00:03:20,379
at the conferences where the scientists
are present and I encourage people that

50
00:03:20,380 --> 00:03:22,300
are picking him up like, you should go
around and get

51
00:03:22,940 --> 00:03:25,380
you know, Dave Deamer to sign
and you should get [laughs]

52
00:03:26,080 --> 00:03:28,020
I think especially for some of the young career people

53
00:03:28,030 --> 00:03:30,800
they've said that that's been actually a
really good way to like,

54
00:03:30,800 --> 00:03:34,120
go up and approach a scientists whose
work they know but they're kind of

55
00:03:34,120 --> 00:03:35,760
afraid to like go up and

56
00:03:35,760 --> 00:03:38,500
just you know
talk to Vikki Meadows even though Vikki's wonderful,

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00:03:38,580 --> 00:03:40,720

and she's really easy to
talk to but like going up with the

58

00:03:40,720 --> 00:03:43,920

comic and saying hey can you sign,
you know, your image

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00:03:44,520 --> 00:03:47,600

It's a talking point that doesn't necessarily

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00:03:47,620 --> 00:03:50,280

come up in scientific fields all that often. [laughs]

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00:03:52,320 --> 00:03:56,860

Issue seven, which was
pre-biotic chemistry and the origin of life,

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00:03:58,860 --> 00:04:03,160

that was released at AbSciCon 2019
just this past June...

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00:04:04,040 --> 00:04:06,620

and I immediately started work on the next one.

64

00:04:06,840 --> 00:04:08,820

We're thinking biosignatures...

65

00:04:09,260 --> 00:04:10,540

and life detection.

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00:04:16,740 --> 00:04:20,850

The blue pencil on this is like, really messy,
but once you get down to the ink...

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00:04:20,850 --> 00:04:22,200

like, you don't see any of the blue.

68

00:04:23,820 --> 00:04:28,120

Sometimes I start with the base image and then do kind of tracing paper over it and get the layering that way.

69

00:04:29,720 --> 00:04:32,760

Anthony Rapp came to AbSciCon 2019,

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00:04:32,860 --> 00:04:35,280

as a keynote speaker.

Yeah, he was in Rent.

71

00:04:35,700 --> 00:04:39,860

And, I grew up gay in small town in Iowa.

Like, Rent was kind of a big thing.

72

00:04:40,020 --> 00:04:42,920

It was great to meet him in person, shake his hand, and thank him for his work.

73

00:04:43,080 --> 00:04:45,820

[Mike, off-camera] And what's that day like when you get that first printed copy,

74

00:04:45,820 --> 00:04:47,840

and you're holding it in your hand, what's that like?

75

00:04:48,100 --> 00:04:49,858

Terrifying! [laughs]

76

00:04:51,400 --> 00:04:53,180

It's always hard because you get it,

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00:04:53,200 --> 00:04:55,880

I mean, I'm one of those people
that when I create something and...

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00:04:56,700 --> 00:05:00,820

and I have the finished product, the first
thing I see is the things that I wish I had done different.

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00:05:01,580 --> 00:05:05,180

Like, it takes months, sometimes longer,

for me to kind of look back,