ORAL HISTORY TRANSCRIPT

INTERVIEWEE ALAN L. BEAN
INTERVIEWED BY MICHELLE KELLY
HOUSTON, TEXAS – 23 JUNE 1998

KELLY: The following interview with Mr. Alan Bean is being performed in Houston, Texas, on June 23, 1998 [for the Johnson Space Center Oral History Project].

I want to thank you, Mr. Bean, for joining us.

BEAN: In this and other places, I'd like you to call me now, when you talk about me now, talk about me as an explorer artist.

KELLY: Okay.

BEAN: Because I'm trying to fit into that category in the art world. So that would be good.

KELLY: That's terrific. Mr. Bean, I'd like to first ask you about your astronaut selection and what made you want to be an astronaut.

BEAN: I'd always wanted to be a pilot, ever since I could remember, and I think a lot of it just had to do with it looked exciting, it looked like brave people did that, I wanted to be brave, even though I wasn't brave at the time. I thought maybe I could learn to be, so that appealed to me.

Then as I grew up and began to think more about it in more logical ways, I continued to want to do it for about the same reasons. When I was in high school, I joined the Naval Air Reserve, which was over in Dallas, Texas, and I was around airplanes, military airplanes, Navy military airplanes, and I liked that, and it just kind of went from there.

I got an opportunity in high school to compete for the NROTC [Navy Reserve Officer Training Corps] exams, competitive exams, to get a scholarship to a major university, so I did, even though I didn't think I had much of a chance. I did win one and went to the University of Texas, and my feeling there was, you know, "I want to be a pilot, really," so I became an aeronautical engineer, with the idea that would make me a better pilot.

Then I became a pilot, then a test pilot, because test pilots flew more kinds of airplanes and did what I considered more exciting and interesting things with those airplanes. So when I was doing that, the space program was born—Al [Alan B.] Shepard, John [H.] Glenn [Jr.], and others—and when I saw them doing that, I thought, "Wow! I never thought of this, but this is just an extension of what I'm doing. It looks like it'd be more fun." All the qualities that I was interested in as a pilot looked like it was just amplified there, and I was being pretty good as a pilot. So I applied. I was not taken the first selection for the program and wasn't told why. It's interesting that NASA [National Aeronautics and Space Administration] still does things kind of that way. I didn't know if they said, "We'll never take this guy," or, "Let's let him have a few more years, and maybe we'll look at him again."

It turned out to be true during that period I tried hard to learn some things that I felt like I didn't know on the exams and all that were the first selection, and indeed, the second selection, they did take me. So it turned out real well.

KELLY: So you were always an explorer, but were you an artist at that time as well?

BEAN: I was—let's don't say I was an explorer. Let's say I was more of a person that liked flying and operating high-performance machinery, and I liked that, the skill it took, the intelligence it took to do that. It wasn't as great as brain surgery, but it was more than some other things, and so it seemed to fit what I was capable of doing. When I would make my best efforts, then I could be very good at this job. You know, you don't know that until you're

actually doing it. So as I did more of it, I got better at it and then I liked it better, and then I did more. It has a building effect.

I had not been thinking about art much because my primary dream was this other. I always have been a person, still am, that's very focused on the goals I want to achieve, and I don't let much distract me. If there's any quality, I would say, in my life, besides good luck, that's been instrumental, is the fact that I can stay focused on whatever it is I'm trying to do. Other people are doing eight other things; I'm not. I'm doing this.

So, focusing on airplanes and flying, I could do better. I could do really well and even compete with those who were naturally more gifted because I did a lot longer during the day of that, at night, and studied and thought about it more. And then when I was a test pilot, I was doing really well. I was seeing that on the learning curve of that profession I was nearing the top. I had much to learn, but still it was leveling off.

So I began to have other thoughts. It just came into my head that, gee, I'd like to take some art in night school. So I did. I'd always, along the way, been a kind of a person that built things, did handy things. I always repaired everything, the cars, everything else, built all the furniture in the first house we moved in, sewed the drapes. I did all the things—you know, I did all these craftsy things as just part of what I liked to do on the weekends. So I said, well, I think I could paint. Little did I know how difficult it was going to be. I thought it was going to be like woodwork or something, which I was quickly very good at and could really do that fast. Painting is much more complicated than that. But once again, as I began, I wasn't the A student in the class. I was the B student in the class and struggling to try to do better. I took watercolor and drawing in night school at St. Mary's College up where the Naval Air Test Center is at Patuxent River, Maryland. And so I just did that back and forth, off and on, all throughout my career.

There will be more to that story then, but I think that answers your question. It was on the back burner. It was not something I was really working on until this became more under control, you might say, and I really was doing it well.

I do speaking quite a bit now, and up until about a year ago, I really didn't spend a lot of time thinking about it, because I was trying to learn to be an artist, which was a very difficult path. I think it takes ten or twelve years to really be professional level of good. Hard work, just as hard as being an astronaut, just different.

And then about maybe a year ago, I began to get this feeling that I had this under control somewhat, not perfect, but still I was able to do the things I wanted to do in art, not as fast, not as good, but still up there competing. And I began to think about the lecturing and talking that I was doing, and so I began to start concentrating on doing that better. I knew that the minute I would do that—not the minute, but between six or nine months of me beginning to think about it and trying to find better ways and adjusting what I was doing to the way I am and what the audience wanted, and over that six months' period, I would say the quality of what I was doing jumped 100 percent. I mean, it was just hanging around until I could get in there and think about it.

Another thing I'm able to do besides concentrate is, if I will do that, then I'm able to see things differently than other people and see in a way that's maybe not like many people see it, but still in a way that's different and a little better than most people have seen it. So I'm able to make a little leap. I always feel like I look at who's doing it really well, and I try to compete with them until I can get near equal with them. It takes a long time. That takes a long time. But once I'm there, then I'm able to do a lot of thinking about it in other ways, and just because of the way I think, then I can make a little jump from there. I can add a little twist that's a little different, and it always seems to be the twist that is more naturally the way I do it than the way this other person, one or two people, that I've been modeling.

So it's kind of a funny thing. I'm not a religious person, but it's funny to me, and I don't have the highest IQ in the group, but if I'm willing to pay the price, then I can really compete at the highest level and really, in some areas, do better because I'm willing and have this funny way of thinking of things.

Now, you didn't ask this question, but I had difficulty when I first came to the space program. I didn't know why. Now I understand it quite a bit better. I am a person that is very left-brained and right-brained, and when you come to be an astronaut, you need to be a left-brain person, and the reason you do is because the major qualities of doing checklists, thinking of everything, backups, all that is very left-brain activity, okay? That's one reason you need to be left-brained. The next reason is all your bosses are left-brained. So when you show up and you're part left-brained and you're part right-brained, you see things differently. I mean, you think they see them you way because when you think about something—when I thought about something in my logical way, I would come to a certain conclusion. Then I would go present this conclusion to Al Shepard or Deke [Donald K.] Slayton, they weren't interested and they thought I was a little nutty. And I was, from the point of view of a left-brained person. I would just walk away saying, "God, that seemed like such a good idea to me." You know, that was a wonderful idea. I had the opportunity to present all the things, and yet nobody could connect with what I was saying.

So I had very much difficulty because I do believe in telling it how you see it as a junior person or any person. And it's only after I was a more successful astronaut and particularly when I became an artist and tried to develop more of my right-brain capabilities that I began to see how different the group is here and the group of artists I know who are mostly right-brained. You know, they couldn't connect with the left-brain stuff. So here I am in the middle, trying to explain something to them, and they're not catching on to the left-brain part; they're catching on to the right-brain part. The right-brain part makes perfect sense to them, but the left-brain part doesn't make any sense. And it was just the opposite.

If I had it to do over again and knew that, when I walked in to see Al or Deke, I would say, "These are left-brain guys. I'd better just not bring anything in that's too right-brained," and I wouldn't. It would have been great. I wouldn't have had any trouble with that. It's just I didn't know what was going on, so I had to tell them how I honestly felt, and when you're this way, then you honestly feel different than someone else. You look at the same ten pieces of data; I felt this way. They look at the same ten pieces of data; they felt this way.

My religious background, which I'm not very religious at all, I'm a very spiritual person, not religious. "Do unto others as you would have them do unto you," things like that. See, that's not a good rule. That's a bad rule. That's a rule for a left-brain person. The right rule, the rule it should be, "Do unto others as you find out from them they want to be done." Because otherwise, what you want may work for your husband or not, probably doesn't, but what you should be doing or I should be doing is asking my wife, "What would you like? What do you think would be fun?" instead of me treating her like I would, find out. So I ran into this.

You see, it's a combination of brain side and just the golden rule, which I try to live by. I try to live by this next rule a little bit, as much as I can. When you don't know anybody, then you have to go to the golden rule. When you do know them, then that's a mistake, to go to the golden rule. After a while, you may find that that works for them.

But anyway, that's a part of being an astronaut, a part that I remember as challenging and frustrating then, and now I sort of think back on it and understand what was going on. I didn't at that time.

KELLY: Well, it sounds like a really unique view to the astronaut corps as well.

BEAN: It was. That's what was giving me difficulty. And to me it seemed obvious, but it isn't. That's why, when I read the paper now and I read that some group wants to stop the

cutting down of redwood trees and the others want to cut them down for profit or something, I have my own opinion, but I can understand. They're just different. It's hard to learn that. It was hard for me to learn that.

KELLY: Let me ask you, when you brought this unique view with you, I guess, all throughout the astronaut training—and I know that after that you went through the recovery system and helping develop it with the engineers, did you bring a unique view with you then in that same perspective to the engineers while they were developing the recovery system at that time?

BEAN: I got into the recovery system just after about a year of the—like the same as an astronaut candidate, although we didn't call them that. At the end of the year, then you were given collateral duties, except they called it something different. I forget what it was called. Mine was recovery system.

No, I didn't have the confidence to do that. I did see things different than they were seeing them, but I was, to me, a new guy on the block. I knew I was a good pilot and I knew how to do Navy things, but when I got in these meetings at NASA with people that had been in recovery for ten years, I didn't really feel like my ideas had a lot of merit, because I really didn't know anything about it. I had had no recovery training, and I'd go to the meetings, I really didn't know what to do. Now as I see it, that was probably partly okay, but I think at that time in the space program, with doing things that we hadn't thought of doing before, that they were needing ideas, too. Everybody was trying to figure it out, you know, because we were going to go to the moon and we hadn't even done hardly anything in Earth orbit. So my ideas, if I'd carefully phrased them and known what to do with them, then they would have been not the best ideas there, but they would have been worthy. Some of them would have been worthy ideas for consideration. Most of them, probably not. But some of them would be. But I never saw them as worthy. Or even if I thought personally they were worthy, I said,

"What the hell do I know. I just came here a year ago. No one's taught me anything about recovery." It would be like me deciding they'd take me into brain surgery tomorrow, and the doctor says, "Well, what should we do next?" I would say, "I guess we'd better put the guy to sleep." You know, I don't have any ideas worth a darn. That's a good idea, really, but I felt that way.

I felt that was not the right—looking back, that isn't—if I could have recognized that everyone was searching and that to take more of a position—also, they look to astronauts as leaders of groups, okay? So I would go into a meeting, like in this room, and people would look at me like, "We're waiting for you to tell us something." Well, what the hell? They've all been here for years, you know, or some of them have. So I'm sure it was a big disappointment to the group because I didn't have anything to tell them. If I did have something to tell them, I was afraid to do it.

So what I should have done, looking back—you never get a chance but maybe it'll help somebody else, I doubt it—but I should have come in and realized the role I was in, which I didn't realize the role I was in, never having been in it and not thinking about these things that much, then I should have realized that I was a leader without knowledge. That's okay, because then you can be a leader in a meeting by gathering the information as you're there. Someone brings up we need to have a new length on the tow line of a paraglider. Well, I don't even know what the old one is or anything about it, but then, as a leader or a part leader—not the complete leader, but one of the two or three key people—then I can say, "Well, why are we not satisfied with—" not just wait until somebody accidentally said it but say, "Why aren't we satisfied with the old length? What do we have that makes the new length better?" You know, I wouldn't have to know anything to discuss that subject right now as a leader, because I could use management principles about leadership in solving problems. But I didn't think about those things.

Every time I came to a meeting I was intimidated. I mean, I thought, "I'll get here. I really don't know about that much. I've been reading about it, but I don't know. I mean, I know everybody else has read this. So when I get to the meeting, they've all read it, I've read it, and they also had these years of experience. So I'd better be careful." So that's more my mind-set. Now I realize most of them probably hadn't read it. I walked in, I'm probably one of the three guys in the room that read it to begin with. I didn't know that then, because I always read it, okay? So I think they always read it. Now I know that's not true. I always read it, and so do three other guys, and the others don't. [Laughter] So I didn't know those things in those days.

So I wasn't a very productive person. Now, other people were. The people who had a lot of self-confidence coming in, Dave [David R.] Scott was very. The epitome of that was Buzz [Edwin E.] Aldrin [Jr.], because Buzz had done a doctorate on rendezvous. He knew more than anybody here about rendezvous. They didn't want to hear it, but he knew more, and he knew he knew more, and he didn't shove it down your throat, but he stayed on it all the time, and he wouldn't give up. He made one of the great contributions, in my opinion, to the success of Apollo, but everybody made fun of him all the time because they didn't like the fact he knew it and he wouldn't give up and he wouldn't compromise. After it was all over, they did it his way, not because it was him—well, but because his way was the best way. But all through the whole time, I can remember people saying, "Buzz, what does he know? He wants us to rendezvous and come up for a final thing upside down. Boy, that's a crazy idea."

I'd say, "Well, why do they want him to do it?"

"Well, he feels that, you know, the sun's coming up so the sun will hit on the bottom of the spacecraft. That way the windows won't reflect the light and you can see it better. But, you know, you'll be looking at the other guy upside down or something."

I'd say to myself or them, "I don't know. It sounds like a pretty good idea." You see? Immediately, you see, immediately—if I had it to do over, I'd say, "Boy, that's a dumb idea,"

even though down deep I would say it's a good idea. But anyway, finally that's the way we did it. But, see, he could contribute, and other guys that didn't really know that much about their subject, that had more self-confidence in themselves for one reason or another, then they were able to contribute more. And some guys didn't know anything and tried to contribute, and they were just detrimental to the whole process, because there's nothing more dangerous than someone with a lot of energy and confidence that doesn't know a damned thing. Of course, we all got out we didn't know much except for Buzz and a couple of others. Everybody was brand new.

So I can't say that I was a good contributor. I wanted to be every day, but I never figured it out. Finally, I got over on a back-up crew. Once I got that, then I could—it was flying skills, and you could get in the simulator, and someone would teach you. I could do that, and I could work extra hours, and I could read the book five times where everybody read it once. So I could do those things really good, but other things, like I just described, interacting with meetings and interacting with other astronauts, I wasn't very good at that. I didn't catch on to that for ten years. I know it sounds stupid, and it does to me, too, but I think I wasn't looking for why so much as just being uncomfortable not doing it, but really wanting to fly. I didn't want to learn all that. I should have stopped and learned it and done it, you know, but you don't know those things. That's part of the—life is a dance you learn as you go, or something like that. How true it is.

KELLY: You mentioned that you had gotten a slot as a backup commander, I believe, of Gemini X.

BEAN: Gemini X, yes.

KELLY: Can you tell me a little bit about the work you did for Gemini X?

BEAN: Well, first of all, that was a nice assignment. That was a very good assignment. I worked with C. C. [Clifton C.] Williams [Jr.], and we immediately started training, and we immediately were pretty good at it. We worked together good. I'm glad we didn't have to fly the mission, because there's so much more than knowing how to do something to really doing it in space.

I'm so glad that I had a chance to fly with Pete [Charles C.] Conrad and Dick [Richard F.] Gordon first and get to go through all this other training, because you need to know a lot more than just the techniques to really do a good job, and that's why we had so much difficulty in early Gemini. I mean, you probably don't see it that way, but if you look back and look at what we accomplished and didn't accomplish and how we fell short, we were all searching for things, and nobody really had this knowledge and a background of things that you really need to pull off space missions as a commander. You need to know a lot, and you have to get the training a couple of times or maybe three times, then you've got to fly once or so. You've got to have a lot of things. Sometimes a guide will do up on one shot and will work out. If you look at the records, that's difficult. It's a much more difficult profession than it looks from the ground, particularly when you're dealing with a bunch of men that all have big egos and we all think we're great already. I mean, we get here, and suddenly we think we're wonderful, when really we're the same people as when we weren't here. But that's what shows up.

I knew a lot of things about flying and doing it ourselves, but I really didn't know a lot of things about how to help the prime crew. Now, the prime crew, John [W.] Young and Mike [Michael] Collins, they never did look for help. I mean, it was a case of them, too, not knowing completely how to do this, see. It would be different now. But they're busy looking—training and getting ready to fly and looking like they can do it, and we're busy trying to learn to be the backup and looking like we can do it, and we're not pooling a lot of

our knowledge that we probably should have been able to, but neither of us knew how to do this.

We were caught up in doing it, and the background of pilots, generally, is you do it by yourself. You know, that's part of it, to solve your own problems. You're flying in an airplane by yourself. You're attracted to these jobs because you want to do it yourself. So the minute you're in a situation where you're not doing it yourself and you don't really want to count on other people, if you know what I mean, they're not going to be there when you're flying it. It's only later, after you discover the scope of this thing that you begin to say, "I need all the help I can get. I'm going to have to go search for it, because the people running along behind me as my backups, they're still in the mode I was in then, so you have to go talk with them and ask their opinion and kind of get it out of them." Well, he didn't do that to me, and I didn't know to do it to him.

So they had a good mission, and I'm just glad that it wasn't us, because we'd have made it perfect if everything had gone right, you know, but we wouldn't have had the flexibility and the understanding. It would have been more by rote: "Okay, this time do this." Because we practiced it. Really, it would have been a difficult thing, and as I said, I've seen that in many other space flights, and I've felt bad for the person that was suddenly there, because it's not their ability; it's their seasoning. It's like suddenly taking a guy from college that's the greatest college player and you put him in the pros as the quarterback; he ain't going to make it. I don't give a damn if he's Joe Montana, he isn't going to make it. Look at what's-his-name that's the good quarterback for San Francisco? Steve Young. He played first for Tampa Bay. He was awful for about three or four years. They finally got rid of him. And then he gets to be all-pro and the Superbowl. Why? Well, he had a better coach, but mostly he had some time to figure it out. You need that here, too. It's a bigger jump than we thought. We thought, "Spacecraft? It looks a lot like an airplane without wings. I'm sure I can do really good here." It's much more complicated.

KELLY: I'm sure it is.

BEAN: I didn't learn that lesson then, incidentally. I learned that lesson later on, after I'd done this a couple more times. Then I began to say, "Thank God that didn't happen," because at that time I was wishing that we would go and we could show how great we were.

KELLY: I know that you served as Capcom on several missions, two. I believe it was VII and VI-A on Gemini, and also Gemini XI, which was Conrad and Gordon's flight. Did you learn a lot from the activities of the crew during your time as Capcom?

BEAN: It's hard to tell where you're learning things after it's over, you know. I read the documents and tried to learn the job. At that time, I was still pretty insecure about what I knew, and so I was really not able to be the person that I really was. I was not able at that time to interact with other people in a way that a Capcom should. So although I did the job, it wasn't one of my best performances. It was more of a by-rote performance. I'd wait until the flight director said something, and I'd do it, and then maybe I'd want to do it again, but I'd wait until he said it. You see? I couldn't operate independently. I didn't have the confidence that I knew enough to do that job in the way it should be done, now in the way it should be done, is the way I see it. I was doing it the way it should be done then, but that was a wrong opinion.

So I don't think back on that time as anything in my formative time to be a better astronaut or anything. It was more of the same behavior that was not as productive as it could have been or should have been. Although I was doing my best, I didn't know how to do any better, so I look back at it as that kind of a thing. I never think of that time as a time that was important in my life.

KELLY: When you served as Capcom for Gemini XI, which was Conrad and Gordon's flight, did you learn about them working together and what they were like as a team?

BEAN: I didn't. First of all, to learn from someone else working as a team, you've got to know what they're supposed to do and how they do it, okay? I had my own job to do, so I'm busy trying to be a good Capcom, and they're busy doing this over here. I know they're doing okay, but I don't know why, because I'm busy trying to figure out why I'm not doing as well as I could or is this as good as I—I mean, I didn't walk away from a job feeling I didn't do well. It was more like, "Well, I did okay there." You see? It wasn't a growth period. It was like trying to figure it out, but not figuring it out yet.

KELLY: I understand then, at that time, did you then go over to the Apollo Applications Program?

BEAN: Yes. What happened then was—my book talks about all these things you're asking, Ms. Kelly, so you'll be able to redo it there. But yes, I wanted to go to Apollo. Everybody did. But I wasn't fitting in because of the reasons I said to begin with, and so in the not fitting in, once I'd been a boss later on, like I was, I began to see that when you're working with a group of people that are new, you're not really looking for those new people to give you any big ideas because they don't have the background yet. If you want new ideas, you go to the seasoned people over here that understand these things and talk about them. Now, maybe somebody down there like Buzz Aldrin, who's smarter, okay, you might ask him, but you don't ask some of the others because you know they don't have the background yet.

So, it's not ego. It's more of—here's twenty people. Maybe two have got a good idea on this subject, because this is a subject that is pretty subtle. You've got twenty old heads

here, maybe fifteen of them. So it's more profitable time-wise to work with those twenty and get the fifteen good ideas than that twenty and get the two, even though those two may be better. You don't have an infinite amount of time. None of us do. So, experience does count. Not completely, but some. So I began to realize then, as a leader at that time, how I had been seen. I'd been seen—I was throwing out good ideas from here that nobody wanted as the leader, and also I didn't have the background to throw out good ideas. I mean, everybody thinks they do. Don't you think you can do a better job than [President William J.] Bill Clinton? I mean, let's be honest about it. Well, you can't, and neither can I. [Laughter] But we can maybe do one thing he did yesterday a little better, but all the stuff we don't even know about he did yesterday, we can't even get in the game. We don't even know what they are. Well, that's kind of the way.

I can remember at those times how we used to have so many conversations about, "If I were Deke, I'd do this," or, "If I were head of NASA, I'd do this," or, "We're doing the wrong number of flights to the moon. We should do this." What the hell did we know? Nothing. We were barely able to fly a spaceship. And not only that, no one was asking us, yet we were busy worried about it. If I had it to do over again, I would spend so much less time worrying about it. I don't worry about Bill Clinton, by the way. He can do anything he wants. I know he's better at it than I am. But I do worry about my art and the space business and stuff, the part that I can do something about. I should have been doing that then. I should have been concentrating on trying to be a better astronaut at that level instead of other things. So I didn't know this.

Once again, it's part of the difficulty. So as the leader of Deke and Al [Shepard], I can see why Deke and Al [Shepard] said, "Boy, Al [Bean] came to us." I don't know what they said, first of all, okay? "Al is a smart guy, and he came to us highly recommended, and all his peers seem to like him, but he can't seem to get on board with what we're doing." You know, when you've got twenty new people, you want them to get on board. You don't want

to have to convince them to get on board. We don't want to convince those guys that you're taking soon that the space station's a good idea and it ought to be this shape. That's the way it is. They'll have new problems later on to solve, and we'll count on them, but right now they need to just accept that and get on board. I'm sure they were thinking things like, "Let him go over and work on this new project. He's got a lot of ideas. Put him over there in that corner. We need somebody because we're going to eventually fly this thing. He knows what he's doing, although he can't seem to connect completely, particularly with the bosses."

So I got shuffled over there, and I then didn't learn that much either, other than I was out in left field and I just had to accept it and had to make the best of it, so I began to do that. I began to forget about Apollo as much as I possibly could and think about it, do that. I interfaced some with Deke there on that. I think that was helpful, although I didn't try to be helpful. I mean, he had to keep an eye on Apollo applications, too, so I attended several meetings. Now that I think about it, I probably worked more closely with Deke then than any other time in my career, because other times, at Apollo meetings, other people had more to say that was more important than I. So I then was just kind of off in this other world.

C. C. Williams got killed in the plane crash. Pete [Conrad], who knew me from test pilot school, although I hadn't done anything during the period of NASA where he could say, "He is really good. He just is undiscovered." I wasn't the undiscovered talent. It was never that. It was always not being able to show it somehow. So he, for some reason, still felt that I could be a good lunar module pilot. His story is that he asked for me to begin with, and they said, "No, Al Bean's not available. Here are these five guys you can take somebody from." Then, when C. C. got killed, he went back in and said, "I want Al Bean." And maybe Deke had seen a little bit more of me, and he said, "Okay. Go ahead." So it turned out that way, even though it caught me as a complete surprise. So I was off in some other land and just trying to have a good attitude.

You learn a lot when everything's going against you. I'm able now—in art, one of the principles you use in art is contrast. If you want something to show up, you make sure you contrast it, either in hue—green against red or something—but mostly values, something light against dark or dark against light. If you don't want it, then you kind of get them closer together and that's it. So the contrast makes all the difference, okay? When I got to be in Apollo and ever since that day, I feel that I'm probably the most grateful astronaut that maybe has ever been here. I had enough difficult times so that when good times came, I never forgot them. I never said, "Well, that's the way it always is. I deserve it this way. This is the way it's always been for me." It never was that way. It was always, "Boy, I could still be over there and yet I'm here doing this." Even if it was a crappy job, it was still relatively a good job, was always leading to a good place.

KELLY: You're very modest about what you do.

BEAN: No, I'm telling you how it went down. That's really how it worked. I am a modest person, and that hurt to begin with. If I had had more self-confidence and less modesty, then maybe I would have been able to be more effective early on. I think of it another way. I was in the Navy and I was a very good junior officer. In fact, I was even promoted early to lieutenant, and I don't even know anybody in the Navy who got promoted early to lieutenant. I never met one in my life. I was promoted early. But when you get here as an astronaut, then suddenly you're a colonel, okay? I knew how to be a lieutenant, but I didn't know how to be a colonel, and a lot of the guys did. I mean, they went from lieutenant to colonel in behavior and attitude and self-image. I mean, that's the way they thought of themselves as lieutenant. So, I mean, it really fit them. And I would look up to them, too. I would think, "Wow! They really know what they're talking about. Where did they learn that?" I realize now it was the way they were presenting it. They were able to do colonel things when I was

still back knowing that I was a lieutenant and shouldn't be thinking about colonel things. Do you see? Anyway, that's the story.

KELLY: That's interesting. In the Apollo Applications Program office, were you working on things like Skylab at the time?

BEAN: Well, Skylab was Apollo Applications. Only later did they not like [the name] Apollo Applications and changed it to Skylab. But there were several different kinds of missions, and so we were trying to figure out what to do with this hardware, how much hardware was there. We were working with Huntsville mostly, because most of the people here were really tied up with Apollo. So I spent a lot of time working with people there.

We were trying to figure out how to use this Apollo hardware and do long-duration lights, study this Earth, study the sun, study the stars. People had some ideas, you know, in industry and came up with some really good ideas, and then we would evaluate. We were going along at kind of a modest pace, but decisions were being made that would later sort of be cast in concrete when, let's call it, the first team got back. So Deke had to kind of keep an eye on things, because he knew eventually some of the decisions that we would be making—I had some new astronauts that worked with me—they'd be stuck with. So he would be around, and that was helpful, because even though he doesn't say too much, just having him around seems to make things go better. He's not the kind of person that says too much.

KELLY: That's interesting.

BEAN: Yes, I have found since then, one of the thoughts I've had since I left the space program—I say it in the book, too—is that something—I'm not a religious person, as I said—but something happened of the original seven guys, the only person that could have done

Deke's job and would have been willing to do it was Deke Slayton, and yet he was the person that had this heart problem that forced him into doing it. Now, he might have done it even without a heart problem. He's the only one that had the ability and the dedication. There's no one [other] of those seven that could have ever done that job. And the number-two person that would probably qualify to do something like that was Al Shepard, and he had that inner ear problem that made him number two to Deke, and it came along later so that Deke was already ensconced as number one. It wasn't reversed.

And it's like, how did that happen? How did it happen that two key people in our office had medical problems that made them go in the positions they were in, that they were really the only two people of those seven guys that could do it? None of the others, for a variety of reasons, would ever have been able to do it. Really a funny thing. And it's so wonderful that Al got well and got to go to the moon and Deke got enough well so that he got to fly in ASTP [Apollo-Soyuz Test Project]. So it was a funny thing there.

KELLY: Sure is. You mentioned that you had been—I guess had been asked to serve with the crew, with Conrad's crew.

BEAN: Yes.

KELLY: And I believe that was as a backup LM [Lunar Module] pilot for Apollo 9.

BEAN: Yes.

KELLY: And did you then train with Jim [James A.] McDivitt's crew in preparation for the flight?

BEAN: Yes, we did. Now, we knew then that we would be cycling the third mission. They weren't called numbers then; then were called something else: A, B, C, D and all along like that. But we could figure out the numbers. So when I joined the crew, then we were backing up the D mission, which later turned out to be Apollo 9, but at the time was going to be Apollo 8. It got swapped. But anyway, we are backing it up, but we know we're going to go, at that time, to 11. Later on we go to 12. We're backing it up, so we're training for this mission, but we know we'd better get ready, because as soon as this mission goes, we're going to get one of the early shots at going to the moon. So we knew this. We knew this from day one, so we were always happy about it.

When you're getting ready to go to the moon, every day's like Christmas and your birthday rolled into one. I mean, can you think of anything better? Now, even if it's two years away, you have this feeling. You see the conveyor belt moving, and your friends are flying every two months, so you see these things happening and you know that you just have to stay healthy and concentrate, and then you'll get your chance. So it felt so good, see, and all this contrasts against being somewhere else with no chance, suddenly being somewhere—overnight, really. In fact, it took me several days from the time Pete spoke to me about it before it really kind of sunk in.

I'd gotten away from Apollo. I'd said, "I'm not going to think about it anymore. I'm going to do as good a job as I can in Apollo applications." So I really was thinking that, and this came up, and it was hard for me to think it was true, you know what I mean? It was so far out of my consciousness that then it took a while. Then very quickly I became, "Yeah, this is what's going to happen. We're working together." And then I could see it, and then, of course, every day was great. Every day was great.

KELLY: What were your most memorable experiences in preparation for the flight?

BEAN: Well, just that things were moving so fast and that everything was changing all the time. Nothing ever seemed to go like you thought it was. The flight wouldn't go right some way, some other flight, people would be changed from the crew. Everything was in a state of flux, always. There was always something new, and you were always trying to learn to do something that nobody had done before, and you always felt like you could learn it. Even though there was no evidence to support that, you always felt like the NASA team could find a way, and, indeed, they did, see.

Then I guess there was just this feeling that you're with a group of people that felt they would find a way to do this impossible dream, and you were caught up in it, and even though no one went to the moon yet, you'd say, "Well, we're going to the moon in a year and two months." "We're going to the moon next December." You knew you were, yet you didn't even have all the pieces in place. The tracking site wasn't ready. The software wasn't ready. You know that the lunar module windows in the last drop test had blown out. It didn't make any difference. You knew that somebody would find a way to make the windows right. You knew that somebody would build the tracking system. You knew that because you kept having these incremental successes, and each one of those was like that. Each time, even though to the outside world frequently it just seemed like, "Why don't they just do it a little more?" to us inside, they were doing an incredible amount.

I can remember also that every time there was a flight, that when that was the next flight and I read about it, I thought, "That's the flight I really want to be on." And then just as soon as that flight was over and then I would start concentrating on the next, I would say, "Now, that's really the flight to be on." [Laughter]. You wanted to be on all of them, you know. You knew you couldn't do it and also it was selfish, but at the same time, they all seemed—and they were, because they were all significant steps along the way. Now they just seem logical and, "Hey, that was easy. Now look what we're doing." But that's the way it always was. It always was, "Wow, look what we're going to do next. Can we really do it?"

And then they'd launch off and do most of it. Then you'd come back and say, "Wow, that's easy. The next one is the real one." So that was fine. That was a memory.

Another memory is just your not knowing anything about what's going on in the rest of the world. [The] Vietnam [War] took place, the racial unrest and all that stuff. I can remember getting ready to fly out to California one time, and as we're leaving Houston, someone says, "Don't fly around the Watts area when you're making your approach to LAX." "Why not?" "Well, they've got a riot going on down there." "Oh, okay." I mean, you didn't give a damn there was a riot. You didn't care whether they were marching in Mississippi. You didn't have time. Maybe you heard accidentally as you were reading a book that somebody, some guy named Medgar Evers, or something like that, you don't even know who he is. You've heard his name ten times. You don't know who he is. You don't care. We never talked about it at work.

We never talked about anything but space. You'd go to work and you'd talk, and it was always about the rendezvous procedure and this. No one ever said, "How do you think it's going in Vietnam?," or, "Do you think we should be in Vietnam?," or any of that stuff that the rest of the world was—we were so focused on this one things or making this impossible dream come true, and that's what I think it took, that we just kind of had to not pay attention. The only reason I've learned about those guys and people is watching Discovery Channel since then and watching the stories about Vietnam and watching the stories about Mississippi and the people that—what was her name—that didn't move to the back of the bus. I'd never even heard of her. What's her name?

KELLY: Rosa Parks.

BEAN: Yes. "Who the hell is she?" you know? Nobody in our office cared, but now you care. I mean, you care, and it was just a part of not being able to do everything.

We had an astronaut party once a month, and usually it consisted of conversation that you had at work except wives were there at the time, and they probably thought, "These guys never talk to us, or if they do, we don't know what they're talking about," because we were talking about these same things over and over again, trying to figure them out. And there was always ten controversial items. You'd solve them or make a decision, like, "Do we have radar or some other kind of tracking on the lunar module?" Maybe that went on for six months. Some others would be, "Do we do a one-orbit rendezvous or three?" You'd study it. You'd think about it.

Everybody would have an opinion, and then finally it would get decided, and when it did, then you would say, "Okay. We're doing that. Now what do we have to know as a result of this?" "Okay, now we've got to know how many times this should strobe." You see, it was a building. You had to solve these big problems, everybody had to agree, because they had to know their little part and work with the big solutions. Then it was the next layer, then the next layer, and finally, just before you do the mission, you solved the last layer, and you'd do that, and then you'd go do the mission and see if this would work, and if it would, then you could do the next layer. But all these others had to be working along the way.

So it was an all-encompassing time of making an impossible dream come true. I thought I was lucky then, but now, in hindsight, to spend your most productive years having an opportunity to think about those things and make that your life is a great gift, a great blessing, that you don't earn, because, see, no one could earn that now. Even though these guys I meet are twice as good as all of us, they can't do that yet. Some day people will do—they do a lot of fun things, and I'm not saying they don't, because they do. They don't have the impossible dream to fulfill. Do you see? If I was that age, I'd be wanting to be a shuttle astronaut. I would like it just as much as I like being an Apollo astronaut. I mean, I would like it. At the time, it would seem the same. It's like your first solo: it doesn't make any

difference how many people have soloed before you, you still get the same thrill as they got. Same way with learning to drive a car.

It's only in retrospect when you look back and you say, "You know, I got to spend my most productive years doing this wonderful thing, not because I was smart, but because I happened to be the right age with this right thing and so I got teamed up with all these people and we got the mandate and the money and the whatever to go solve this impossible dream." So now when I think about it, that's a big thought, of how lucky we all were. I'm not talking about just astronauts; I'm talking about anybody here. They got to be part of solving that impossible dream and making it come true. I don't care what you did. If you spent your life there, because we only did a little part of life, okay—that is something.

I've never met a person that was in any part of Apollo that didn't think that was the best part of their professional career, even though they went on to be president of this and prime minister of that or something. That part—and I didn't know that at the time. I was too caught up in the day-to-day doing to know how blessed we were, how lucky we were, and a lot of people don't know that yet, by the way. But we were lucky. I feel lucky.

KELLY: I'd like to ask you a philosophical question, but I'd also love to hear a lot of your stories about your mission. But first I'd like to ask you, how do you express in your art what you experienced while you were on your lunar mission? I noticed that most of your works deal with the lunar landing missions. What is it that you want to convey with those works in general?

BEAN: Well, first of all, I don't think you can relay feelings in art. Although people say you do, I've never met someone who could say to an artist, "What feeling had you relayed here?" and they would say, if they were a little phony, I'd say, "Okay. Show me. Why do you think so?" And then I would say, "Okay." I wouldn't argue with them, but I would see it's not—so

you can relay emotions with words. I don't think you can in painting. You can get emotions somewhat in music, more if you've got lyrics. Art I think of mostly as music without lyrics, so people get their own feelings from this. They like it, but my feelings from bluegrass is a lot different than yours. You don't even like it, maybe, and I love it. If we had lyrics, then we'd both get the same message: the little girl got lost in the snow or something. So that's the way I think of art.

So, realizing that, I began to say, "What do I want to do?" and what I wanted to do was leave a body of work that told the stories that I thought were important as an astronaut, and if you looked at any one painting—it'd be great if you could make a painting that would tell it all. I don't think it can be done. But if someone looked at a book of mine or maybe two or three books, after they read them and thought about them, maybe they would have a better feel for what Apollo was. Maybe they'd do that. Maybe they'd look at all the photographs taken of Apollo. Maybe they'd look at the NASA films. Maybe they'd look at the HBO series and they'd read the other books. Maybe then they'd really get a good feeling.

So it's more of trying to pick some things that I think are interesting and do paintings about them, not because they're the most important things done, but because those were the ones that me, as a participant, was interested in. Then you've got to see what Pete Conrad thought was interesting, and also Jim McDivitt and Neil [A.] Armstrong. Everybody's reality is different, we know. So that's kind of what I do. So my thought frequently is, I hope I live long enough so that I can complete the job. I never will be able to complete the job of doing all the paintings that I've got in my head, and I've got books at home listed, a couple of them. I just won't live that long. And new ones come up. Almost every time I do one or two others, I get a new one that I think needs to be done. So I know that'll never end.

But I hope I can live long enough to do enough so that if kids read through the book, they'll say, "Gee, this looks like a lot of fun. You know, I've heard my parents say that ten or fifteen years from now, they're going to try to go to Alpha Centauri. I think I'll try to be an

astronaut. I think maybe that would be fun. This guy here, look at the fun he had, and all he did was go to the moon. We're going to get a chance to go to the third moon of Jupiter," or, "We're going to get a chance to be the first people on Mars." That's kind of how I think about it. And no one thing does anything. They all are as good as I can make them. None of them tell the excitement—I don't think that can be done—tell the excitement.

Maybe you can get the excitement in a movie. Because *Apollo 13* was such a great movie. It had a lot of the excitement and things in it. I don't think you can necessarily do it with the kind of art I do. It's communications. It's communications, and you can't communicate certain things, I don't believe, in that kind of art. Did I answer the question?

KELLY: Absolutely. I'd like to ask you about your mission, or would you like to take a break?

BEAN: Well, why don't we just go for another fifteen minutes, and then you can see what you think, and then we'll do—okay.

KELLY: I'd like to ask you about your mission. I know you've had a very interesting launch, and I'm wondering if you wouldn't mind telling me a little bit what that was like as your first mission.

BEAN: Well, first of all, the thing that was going through my head was that whatever happened, that I would be able to do the job that was called on, that I'd been trained to do, that I shouldn't forget. So we'd get hit by lightning after about fifty-nine seconds or something like that. I did not know we were hit by lightning. I had no window. The window was covered then, and certainly, with all the noise and vibration, there's nothing—like, an airplane, frequently if you're hit by a good bolt of lightning, it'll jar the airplane, and often you

see the flash because it'll get on the nose. Usually on an airplane it lands on the nose but trails off the wings or the tail usually, kind of goes through you.

So I didn't know that. I never imagined a lightning bolt hit us. I knew it was raining, but I'd never been able to look up and see the dark clouds, you know, from the time I got in the spaceship. So many different caution, warning things came on. All the electrical system lights came on, every single one. Th[is] was no failure that we'd ever practiced. In the backup for 9, in the flight for 12, there was no—we did every failure they had ten times. There was no failure that was even close to that. I looked at that, and I thought—because we were really good. We were good at doing these things. And I thought, "What could cause that?" And the only thing I could think of was there's a connector, a big connector, about this big, between the command module and the service module where all the cables come, and you separate that thing just before you separate and enter. I thought that had come loose, because I couldn't imagine anything—because there was nothing, information coming from the service module. Everything was in the command module. Everything there had gone.

So I said, "We're getting ready to go into orbit without a service module." I was thinking, "What can I do about that?" I didn't have any power on any buses, except from the batteries. I knew what was carrying the load. And I thought, what had happened? Either that had fallen off, in which case we'd had some horrendous short, you know, something had shaken loose and given us a big short on one of the main buses. That tripped off that main bus, and for some reason the load that was remaining was too much for the other bus to handle and it tripped off. That's the only way you can get rid of two buses. We never had two bus failure in all the training. It's like Apollo 13. They'd never had one that depleted all the oxygen tanks, and yet we had one in real life.

BEAN: So I'm there dividing my time between thinking, "What is going wrong that would give us this indication?" and, "Here's my chance, and I don't have the slightest idea what to

do." So my brain is not even able to completely concentrate on solving the problem. I was doing all that. Then I'd hear Pete and Dick over there. They're working on their part of the problem, and they start talking about lightning, and that doesn't mean a lot to me, because I'm still trying to figure out what to do. Then they call to get me to throw a switch, which I did, which I didn't remember what the switch was for, either, but it was giving them telemetry data. That was less telemetry data, but at least some.

So I flipped the switch, and they then said, "Try to reset the fuel cells." Well, I didn't much want to reset the fuel cells, because I didn't think three fuel cells had failed, and so you don't want to put power on a short. That's a dumb idea, get a fire going. At the same time, you need power, and the primary rule of flight that a lot of people don't know is, if you're going the right direction, don't do too much, because at least you're going the right direction. So many pilots have been flying an airplane and one engine quits, and in their big haste to do something, they feather the other engine. Then they haven't got any engine. Or they get a fire in the right engine, they shut off the fuel to the left engine. Then they've got a big problem, see. So you don't do things like that. You always think about them a little while, because if you make snap judgments, a good percent of them will be wrong. You don't want to be snap-judging, because that's only a myth: test pilots make snap judgments. Not the ones still around. Those guys in the ground, they were doing that.

So I'm saying to myself, "That's a good idea for them, but I think I'll think about this a minute." In fact, I might have just said, "Well, let me think about this a minute." So I'm thinking, "What should I do? What should I do? Okay, I'll reset one of these, and if it trips off again, then I'll reset another one on the other bus to see if I can get something going." But I wasn't in any big hurry, because we were headed up to orbit, and I didn't want to screw that up by messing around over here. So I tried one and it stayed on. So I said, "Wow. That doesn't even show—" you know, I checked the amps and volts. It worked good. It was great. I put on another one. It did the same thing; it worked great. I put on the third one. Each time

I was waiting for something to go "Beep!" you know, and everything go off again. It never did. Suddenly we got that. Then I reset the AC buses and all that other.

So by the time we got into orbit, we were okay, but it wasn't because I had done anything that I had learned in training. It turned out that if I'd just done what the ground said, we'd have gotten it faster. The only thing I really used was like a basic thing of being careful if things are going in the right direction. Things were, and we finally got the power on, and then we got up into orbit.

I'll tell you one more story, then I'll have to go. But, as I told you, I've always been a person that spent a lot of time trying to learn things. I'd spent tons of time in the simulator, in the command module simulator, looking at stars, learning stars, learning where the telescope pointed, much more than—I never had any job like that. It was always just—I just did it, and I learned to do it with the charts, star charts, we had. And I was good at that. I mean, I'd spent a bunch of hours in there. We'd have some other training, and people would be finished, "I think I'll go look at the stars a while," point the spacecraft and learn them. I thought some day I might need them, okay?

So we get into orbit and we've lost our [navigation] platform. So we've now got to get an alignment. What we've got to do, it's daytime now so we can't get an alignment. We've got to get an alignment as soon as we get into dark, and we've got to get that alignment in time so when we come back into the light again, we can make the burn ahead to the moon, or we're going to be late. So I'm saying Dick and I—Dick is going to do the alignment. Normally, in practice, we've always been able to call up the automatic program. It points at stars, it does the alignment. Okay. Can't do it this time.

So I get out my star chart, and I looked and I looked, and I said, "We're going to get to dark like around here, and if I can get Pete to point here, then I know that in the telescope for Dick will be these stars. Okay, we're not going to point there, because there's two or three. I'll have him point this command module here, because I know then there'll be one bright star

there, and we'll know what that is." So I did that. If you check the intercom, I told them where to go. We get into dark, and it's not night-adapted yet, and so I said, "If you center it up and look through there, you should have one good star, and that ought to be Arcturus," or something. I didn't even know what it was. I'd picked one that we couldn't miss, and I'd picked a second one, too.

So he says, "There's a start."

I said, "That's number twelve, shoot it."

And you can get the tape, see if this is true. And then when he finished that, I knew just where to move. I said, "Okay, Pete. You want to pitch up thirty degrees, and, Dick, you want to look off to the left, there's one star over there, and that's something else."

He did it. He aligned them. And I thought, "God, I hope these are the stars." Because if we'd picked a wrong star, then it just gives you an error, and then you're back to square one trying to figure out which star, and you can't hardly tell, looking through there, and we didn't want to waste the fuel or the time. Don't forget, we're still hooked up to the S-VIB.

He made a good line. It was zero. We aligned that thing in one shot. I've always thought that on that mission that was one—I didn't do much at launch, but that period was one of my finer hours, and it was just because I'd spent a lot of time trying to learn stars in the simulator, trying to learn how to really work, even though I'd never had to do it. Notice I was just looking out the window. In a normal mission, it would never have happened, but it worked out for us. So it was a nice time.

KELLY: That's terrific. I'd love to go on and ask you more questions, but I know—

BEAN: I need to go. I've got my job. I appreciate what you're doing, and I think the thing to do is let me see what you do with this. That'll also give me a little insight into what you're

doing, how you're converting this into written things, and then I'll fool with this, and then we'll try to do more. We'll try to do a really good job. I can tell now, because I talk a lot, that it may take two or three times. But we'll do a really good job, and then at the end we'll have something that you'll think is appropriate and me, too.

KELLY: I'm deeply honored.

BEAN: Well, thanks. I'm honored, too. Thank for listening. It brings back some good memories. I haven't thought about those things for a while. You know, you get painting, and you're really thinking about which colors would work. I get a call from Space Center Houston saying they want to use one of my paintings for a mural, so I'll say, "Okay. Get a slide projector. I'll bring slides of them, and we'll project them on the wall and find which ones look good there." So we do that. We find the one we like, but it's not the right shape.

So they say, "We'll just take it that way."

I say, "No. We don't want to do that. I'll go home and stop what I'm doing, and we'll paint a really nice one this scale."

So we've got the wall, seventeen by forty, and I painted one sort of like it that turned out to be much better because of more American flag, and did one better. Then when it was completed, then they knew some people, Mural Makers was the name of the company, and they had a Disney studio in North Hollywood. So I went out there and met the people, and that's all they did all day long. They took pictures or whatever it is. They do all the Disney murals that are on the ships and in the Disney hotels and all that other. That's what they do, plus other people's things. So they said, "Okay. Just give us this."

They had a room that's a sound stage, so they had muslin, is what they use, and they had a height of seventeen feet. They really had more, but they needed only seventeen feet. Then they rolled out forty feet of it. They had a way to kind of hold it against the side so it

was flat. Then they marked it off with these huge T-squares and squares, and then they marked my painting off in squares with a little plastic over it, you know. There's maybe forty squares this way, and maybe it was one square every foot or something. And then they took this and got up there with squares this big on squares this little, they drew in the thing really good. They did this in a couple of days. I mean, they did this faster than it took me to draw it.

So they do it in a couple of days, and then they get up there, and, with regular housepaint, they mix it up, looking at yours and then get some buckets of those colors. Then they go up and do it, and they do it real fast. And then I would go out there. The thing that they don't do and they need the artist for is they need the interrelationships between them. I would say, "The background is too light, it's too purple," you know, that kind of thing. They'd say, "Well, it looks purple," and I'd say, "Well, maybe it is. It still needs to be a little less purple." They'd go then and paint it a little less purple, and maybe they'd do some of it while I was there, and then I'd go back the next day and I'd go back the next day, then I'd say, "Well, I've got to go back to Houston."

So I went out there several different times and we would work on it sort of like that. And I didn't really touch it then. And I found out a funny thing about them. If you were asking them to paint something that was cloth or things like they knew about, they could paint it, but if you asked them to paint a camera knob that they weren't familiar with, even though the camera knob was right there in the painting and it was round, they could not do machinery—I mean hardware. It was like a mental block. It's like the person who can paint things but they say, "I can't paint a person." Really, if you can paint, then you can do about anything if you just spend the time.

So every time there would be a little fitting, like the fitting on the flag that went up here, they had—I mean, I would explain it to them, I'd show it to them, and yet when I'd come back it wouldn't be done right. I know it was a mental block. But anyway, like, for

example, at first the stars were kind of fat like on a cartoon. I said, "How come the stars don't have straight edges?"

"Well, we always make them kind of fat."

I said, "Well, maybe this is a chance not to make them so fat." So it was funny about certain things they had. That's like cartoon flags, you know. They did a lot of things. The buttons or something would be—it was a little like that, you know. They were good artists. I'm not complaining. I'm just talking about a different point of view.

So then they came here and they hung it on a wall like a big wall covering, glued it on, and it was pretty near finished, and then you use hydraulic lifts. They brought the paint and the hydraulic lifts. Then they would get up there, and I would say, "You've got to have more glint in the visor. It doesn't look round. You've got to put more dark here." They would work on it. Some things they could do. If it was a cloth thing, man, they'd do it in a hurry. If it was a visor, they were pretty good on visors. But if it were something like a knob on a flag or a top of a camera, you could forget it.

Finally, after about a day of this, I said—and I really was hesitant to do it because some people don't like you to touch their art, I said, "Well, let me do this." Because I could get up there and paint the knobs in five minutes right, you know, and I'd been spending thirty talking about it, and they couldn't get it right. So I got up there, and it kind of bothered them a little bit. I could see that they really didn't see me up there doing that. But then after doing it a couple of times and seeing how we could do it faster, knowing they were going to be there three days, then I began to spend more time up there. It got, then, when there was just two of us, the guy that was the head of it and I, we painted them together.

We'd get down at the bottom and look at it and say, make a list, "The hand's too dark and fades into the sky," or something. "That red part of the flag doesn't have enough color variety." You know, we'd make a list. Then we'd get up there, and we'd go to the red part and, okay, color variety. We'd do it. And you do those things. Then we'd come down and

maybe fifteen out of the twenty would be okay, but five that we changed we overdid or didn't do enough or something like that. So that's how it finally came to be.

They then asked me later all to do one down at the Astronaut Hall of Fame, which we just finished. Do you like that? Thank you. We did it the same way, except this time, when I went out there to work on it, they didn't go through all this, "You stand at the bottom and talk about it" stuff. "Let's go do it," you know, and I'd get there.

ROLLINS: That's a great story, because I just saw you up there like Michelangelo, up there starting from scratch.

BEAN: No. No. What we did, we finished it that way. This guy's name is Bill Anderson. So we'd get up there, we'd sit down there and look at it, then we'd get up there and we'd change it. Sometimes when you go for color variety it's great to have two people, because his idea of variety is different, and just the fact that we both did more variety is three times as much variety. So we usually had that. But sometimes we'd get down, we'd say, "The hand's too long," then we'd shorten the hand. Then we'd look at it, "It's too long," because you look at it at these funny angles and stuff.

So we ended up really enjoying it, and we finished before the three days was up. We said, "You know, I don't think there's anything else we really have to do here. It looks good." Of course, we both learned how to work with each other. It was a lot of fun. We both like it.

ROLLINS: Did anybody document you doing this? Were there people taking pictures or anything?

BEAN: I don't think so. His wife took a few. Yes, she's probably got some.

ROLLINS: Because as you tell the story, I'm thinking, gee, I wish I had been there with a videocamera to videotape you guys.

BEAN: Oh, it'd be good. It'd be fun seeing us mess with that thing and trying to make the star or the reflection bigger or littler, you know, and you'd say—

ROLLINS: A great documentary for PBS.

BEAN: They'd love it, because people don't know what artists are doing. They think they're just drawing it out through their head, but they're really not. They're doing it, and then you're redoing it, and then you're looking at it and say, "What's good? What's not good?" And it's only your judgment. I mean, there's nobody saying, "The feet are too big." I mean, this person says the feet are too big, and this person says, "I like them a little big." So there's no real laws.

I used to compare it to fixing my car. You know, you replace the generator on your car. You get it on, you follow the book or someone tells you, you get it on, you start the car and look at the generator. Is it generating? That's it. Okay. Close it up. Let's go home. All right. You draw the generator, whatever, and you think, "Is that good enough?" One guy thinks it should be more blue, and the other guy thinks it's too big. So it's kind of a fun thing. It's a play-around thing.

KELLY: What medium do you usually work with?

BEAN: I work with acrylics, for the simple reason that I felt acrylic was a more cutting-edge technology than oils. Even though I like oils a lot and painted more in oils before I changed, I felt like because my subject was cutting-edge technology that it ought to be. I don't paint on

canvas or Masonite anymore. I paint on aircraft board, which is the plywood you make real airplanes out of, real wooden airplanes, that comes from Scandinavia. There's about twelve plys and they're little bitty and special epoxies and stuff so you can fly them through the rain and they don't debond. I put a texture material on there. I use moon boots to put texture in there.

KELLY: Do you do use [unclear] or anything like that?

BEAN: No. I used to, and it never looked right. So I make it with the hammer I had on the moon that I've loaned to the [National] Air and Space Museum and I got it back. So the hammer that I actually pounded on the moon with I pound on my stuff. And I've got the core tube I drove in the moon that I put in there. I always wanted some moon dust, and I didn't have any. One day I was sitting at my desk looking up at the patches on my suit that NASA had given me, you know, Apollo 12 and all that, the flag, and they were dirty from moon dust. I said, "You know, there is moon dust there."

So I got up and cut and measured the flag and everything off and cut off a piece and ground it up. So every painting that I do, I put that texture, get those moon boots and all that other texture I just described. Then I sprinkle a little bit of the patch in there so that symbolically there's dust from the ocean of storms.

Then a friend of mine was the curator of the museum up in Hutchison, Kansas, the cosmosphere, Max Harry [phonetic], and he had our Apollo 12 spacecraft there, and when they shipped it to him and it got there in this big crate box, when he opened the box, riding along on the rail of the car had shaken off some of the burned heat shield. So he vacuumed it up and sent it to me. So I sprinkled that burned-out heat-shield dust, and maybe there's even cosmic dust in there. Who knows what hit the—I'm sure there's solar wind that hit the bottom of the spacecraft. So that's sprinkled in there.

So, before I began painting, I've got the texture of the moon. See, it's a unique texture. I told you to begin with that I get to thinking about something, I can usually think of something better. I know of no artist ever that had any texture kind of like this. I've seen with texture, but they never had anything really to do with what they did. You see? But mine is the material that the ground is flight vehicle kind of material. The material has moon boot imprints. It has tool imprints from a lunar tool and a lunar core. Everything that touches it is a lunar-related thing.

And then it's got trace elements, you might call them, maybe not even that much, of dust from the ocean of storms and from our spacecraft, and also he had some foil from the hatch. So he sent me some of that, little pieces of foil in there. So all of that's in there before I begin painting, and then the painting is done over that.

One thing about being an artist that's nice is you can just do things because they're fun. And you would like it. See, you don't have to call a meeting. You don't have to convince anybody else in the room that you ought to make a textured panel with your hammer. You just do it. Now, the problem with that is you make lots of mistakes, and if you talk about them in meetings, you don't make near so many mistakes. And not much is at stake with mine. If I screw up a painting, I just repaint it a little bit. Here we were trying to get to the moon. You can't afford the kind of screw-ups that I have on a daily basis.

So it's a good thing to add to the art. It's value-added. It's completely original. You can see how, with that kind of thinking, I could get in trouble with Deke and Al Shepard. Don't you? [Laughter] I'm coming in saying, "What we ought to do is take our spacecraft and pound them a little." But I didn't say that. You can see my ideas were as kind of different as that.

KELLY: That's fantastic. Thanks a lot.

[End of Interview]