

| FEATURED ARTICLE

# ONE ON ONE WITH 3D PRINTING

BY STEVE BERGSMAN  
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## **GRANT PRUITT, SIOR, FOUNDER AND PRESIDENT OF DALLAS-BASED WHITEBOX REAL ESTATE, HAS BEEN PEERING INTO THE FUTURE, PARTICULARLY IN REGARDS TO 3D PRINTING, WHICH HE THINKS WILL CHANGE THE INDUSTRIAL SIDE OF THE COMMERCIAL REAL ESTATE INDUSTRY.**

### **WHAT REALLY IS 3D PRINTING?**

3D printing is a mechanized, computerized way of manufacturing with little to limited waste. As for personnel, you need someone to design the program, but from there, a specialized “printer” runs with the design. Today, we are 3D printing such items as airplane parts, shoes, robotic equipment, metal products, etc.

### **GENERALLY, DO PEOPLE UNDERSTAND 3D PRINTING?**

When people talk about 3D printing, they often think of it as a mystical transformative that drops from the sky, falls into a machine and makes a product like magic. But really, it's just about taking raw material and creating something with physical dimensions by computer.

### **AN OVERSEAS, 3D PRINTING GROUP PINPOINTED DALLAS. WHY?**

I can't tell you who it is, but I can tell you the reason they picked Dallas—and it is not just one company, but others as well. We are seeing this company in Dallas-Fort Worth because the metropolitan area is in the center of the country. Historically, foreign companies needing to manufacture something in the United States have gone to either coast when they wanted to have a footprint here. The

reason is simple: when you are shipping things in, you have to go to a port. 3D printing eliminates the need for ports for the finished goods (raw materials not withstanding). The new strategy asks: which node in the center of the country allows the biggest and greatest form of distribution? The answer is typically Dallas or Chicago, but in the latter it snows, which can mean lost days, more expensive labor, and a government that's not as pro-business. With Dallas, you get a big chunk of the center of the country. Markets like Salt Lake City and Reno will increase in favor because you won't have to be in California to distribute in California.

### **IF YOU ARE MAKING PARTS FOR AIRPLANES, WOULDN'T YOU WANT TO BE NEAR SEATTLE, ETC.?**

You are talking about a manufacturer that services one client. If you have a large diversified client base, you need wider distribution. If you are a manufacturer who's trying to increase your client base, then you need to be

someplace where you can reach multiple clients. 3D printing is a boon, but not for the manufacturing that you are thinking of. Henry Ford changed the model when he created the industrial assembly line, and 3D printing is changing the model yet again.

### **WILL THIS INCREASE MANUFACTURING IN THE UNITED STATES?**

From a political standpoint, you don't want to be taking trade secrets and sending them to China. My bet is the raw materials—the steel, resins, plastics, or food materials—are going to come from somewhere overseas. Ultimately when you print, your cartridges are going to be the raw material. You might have to import these in order to produce in the United States, but it is a totally different production than what we are used to. It won't be 30 guys on the line cranking out one piece; you have a machine that is creating a product.

 **HENRY FORD CHANGED THE MODEL WHEN HE CREATED THE INDUSTRIAL ASSEMBLY LINE, AND 3D PRINTING IS CHANGING THE MODEL YET AGAIN."**

## IS 3D PRINTING A DISRUPTER?

The thing about 3D printing is that we are just in its infancy. While it disrupts the traditional distribution nodes and will increase manufacturing, we are nowhere near what I think it will become, and personally, yes, I see it as a complete disrupter. In the end, I think it will increase the need for distribution. The reason I say that is because it involves the same premise that the direct-ship, Amazon-type model used, which increased the need for distribution. If you go back a dozen years, the sentiment was that with all this direct-to-consumer distribution, it will reduce the warehouse footprint. What happened? It infinitely increased that footprint. 3D printing could also exponentially increase the warehouse footprint. It's just a way to

more efficiently create product that is already going into our existing retail framework.

## WILL THIS MEAN A DECLINE IN COASTAL INDUSTRIAL PLACEMENT?

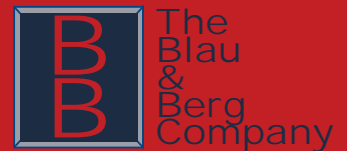
Take Long Beach/Los Angeles (LBLA), Calif. That is one of the most expensive industrial markets in the country. It is desirable because it is one of the largest ports in the world and brings in most of the products from China—a lot of which are finished goods. If I'm ordering, for example, paper cups, it was probably made in China. With 3D printing, I just need the paper pulp, for someone on the other side of the world to just push a button and generate those cups here. I can distribute them from somewhere

other than LBLA. My point is that 3D printing allows me to go to markets that are cheaper than LBLA, because I don't have to be there. And, quite frankly, those other markets are going to be easier to get distribution because they have a wider network. I'm not limited to a 500-mile radius location where the majority of that is in the middle of the ocean. Demand in places like Chicago and Dallas or Vegas and Phoenix will increase.

## HOW LONG BEFORE WE START SEEING DISRUPTION?

We are starting to see it already! I mentioned we had a group that picked Dallas. That was the first time I had seen it because we always ended up losing companies to one of the two coasts: New

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Jersey/New York or LBLA—every once in a while they would pick Houston. They don't need that seaport anymore and they picked Dallas. We started seeing other groups from other countries that wanted to distribute and manufacture a product pick this area.

## IF YOU CREATE SOMETHING VIA 3D PRINTING, ISN'T THAT A MANUFACTURING JOB?

It's really a technology job—you are creating via the computer process. When I think of manufacturing, it means working with your hands, welding or other types of physical labor. Through technology, we are creating the program to create this product, so you will need people to create the programs. Take for example, a shoe. If you can 3D print a shoe, then you don't have to have the seams and you don't have to put together different materials. If you 3D print, it is done in one step.

## WHAT WILL ALL THIS DO TO THE SUPPLY CHAIN?

The initial part of the supply chain as it relates to the raw materials won't change much because you are still going to have to import raw materials. As it relates to the production, warehousing and distribution, that's where we will see the changes. We will continue to see the fruition of the last mile, instant-gratification, Amazon-based eco-system.

## ANY OTHER IMPACTS?

The other place where I see 3D printing impacting the eco-system is in that immediate gratification capability. If I want a product now and Amazon has it, I can have it at my house by the next day or even earlier. But that is only if they have it in stock. If it is something else

that is produced in China, then it must be manufactured there, shipped to the United States, sent through customs, loaded on a train and railed across the United States to Amazon. Now, from an instant-gratification standpoint, I don't have to wait three weeks for that boat to get across the ocean. That item could be manufactured in the United States and shipped out immediately. It cuts down that lead time.

## WILL IT CHANGE THE BASIC STRUCTURE OF TODAY'S WAREHOUSE/DISTRIBUTION CENTER?

I believe you will see more of a hybrid facility where there is a 3D printing side and a distribution side, as well as increased clear heights to be able to accommodate that distribution and warehousing piece. Expect continued mechanization so you will need flatter floors for the laser-guided equipment to be installed. Also, narrower aisles with picking systems and greater heights so as to be able to stack higher. ♥



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# NOTABILITY APP

Written By: Daniel Palmeri, SIOR

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