

Toyota's Caltly Design Research Celebrates Its 40th Year and a Rich Sports Car Design Heritage

January 13, 2014

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DETROIT, Michigan (Jan. 13, 2014) – The first design center established in North America by a Japanese automaker, Toyota's Caltly Design Research began as a bold experiment on October 2, 1973 in El Segundo, California. Ideally situated in California to best absorb the influence of the state's burgeoning car culture, the first Caltly studio was viewed as a unique exploratory branch of Toyota's global vehicle design organization. At the time, no one in the Toyota organization could imagine that 40 years later, the Caltly facility would play a key role in some of Toyota's most significant designs and be pivotal in the company's movement toward regional autonomy for North American product development.

The Caltly name is a mash-up of the words California and Toyota. The initial mission was to serve as a laboratory for new design ideas, providing an open field for form, shape, and materials exploration. Caltly offered Toyota's designers a place to study, understand and incorporate the trends, tastes, and product requirements for vehicles destined for the important North American market.

Compared to the resources of rival automaker studios, the first Caltly effort was very much a "mom and pop" operation. "El Segundo wasn't a campus. It was one portion of a modest building in an industrial area. There were about six designers and 25 people total in support. Meanwhile, we would hear that domestic studios had 300 modelers and 100 designers. The manpower available meant Caltly designers had to know more about the package and the architecture of the cars since we only had a couple of studio engineers. Early on, there was an underdog feeling at Caltly which helped make working there feel like a team effort," said Doris Kusumoto, Caltly Financial Manager.

Guided by the vision of Toyota Motor Corporation patriarch, Shoichiro Toyoda, and Caltly's first Executive Vice President, Mamoru Yaegashi, the first Caltly studio launched with Noritsuna Watanabe as its General Manager. Under Watanabe's direction, the goal was to establish a design and research "beachhead" in the U.S. market. The small facility operated under the stealthy veil typical of design studios where employees held a practice of not explaining what they did in the intimate confines of the El Segundo building. "Given the security surrounding vehicle design, we kept it as a hush-hush operation. Some locals thought we were a small manufacturing facility, or even selling t-shirts. Early on, it was so low profile, we were not allowed business cards," added Kusumoto.

In 1978, Caltly relocated to the Orange County, California suburb of Newport Beach. That same year marked the first time a Caltly-influenced design, the iconic 1978 Toyota Celica Liftback, reached production. This design initiated the studio's history with sporty coupes.

Caltly Design Research grew in its design prominence as Toyota soared in the global automotive market. Caltly earned more design responsibility and gained influence as Toyota sought to maximize product development resources to broaden the global product line. In the late 1980's, Caltly designers engaged in more coupe form study lending design creativity to what would become the 1992 Lexus SC400. This expressive luxury coupe made a visual statement about the Lexus brand, then in its infancy.

The Calty facility grew in 1990, tripling in size, and adding two new buildings. Today, it employs 65 people working in an 85,000 square foot design space. As regional product development autonomy grows, the Calty team continues to work closely with planning groups at Toyota Motor Sales to help develop production vehicle concepts. Skills such as sketching, clay modeling, CAD, milling, fabrication and painting bring concept models to life. Today, Calty's imprint on Toyota Global Design is profound, with an estimated 75% of the concepts emerging from Calty influencing or becoming production vehicles down the road.

With the growing emphasis on regionalization of product development, in 2004 Calty opened a design center in Ann Arbor, Michigan to collaborate with the nearby Toyota Technical Center. The Ann Arbor Calty facility focuses on local production design efforts such as Tundra and Avalon, products designed specifically for the North American market.

In 2012, Calty added the Toyota Innovation Hub in San Francisco. Strategically located near Silicon Valley, the establishment of this facility was a key step in Toyota's global initiative to partner with innovative companies in technology, social media and design. "We want to transplant the innovative culture of the Bay Area to Toyota's in-house innovation team," said, Kevin Hunter, President of Calty Design Research. "It is a critical time for the automotive industry to redefine itself in response to new technology, customer's expectations for new experiences, and the way industries are structured."

Since 2007, the Newport Beach and Ann Arbor studios, and the San Francisco Toyota Innovation Hub have been guided by Hunter. A Toyota Design employee since 1982, he is Toyota's first North American design president. In addition to several key production vehicles such as Tundra and Avalon, key sports car and sporty coupe projects such as Scion Fuse, Toyota FT-HS, Lexus LF-LC, and now the FT-1, have evolved under his leadership.

On the heels of revealing its most impactful sports car design yet in the Toyota FT-1, the future looks very bright for Calty as Toyota's initiative for more regional product autonomy continues to shape its North American products. "Key volume sedans such as Avalon validated the regional development strategy. Focusing the design and engineering in the car's primary market resulted in a very successful and appealing sedan tailored to the tastes of the region's buyers," said Hunter. "As for the future, we see FT-1 as symbolic of an evolution in our mission as we move toward designs that better balance key emotional and rational elements as part of our brand promise. Calty will be integral in the movement to bring more emotional, more satisfying and engaging Toyota designs to market."

Early Calty Production Sportscars:

Calty has designed or had a hand in many sports cars, including 1978 Celica, 1989 Celica, 1992 Lexus SC400, 1993 Supra, [2007 FT-HS](#), [2012 Lexus LF-LC](#), and the [2014 FT-1 Concept](#).

1978 Celica

- First production car designed by Calty.
- Celica Liftback version. Front engine, rear wheel drive.

1989 Celica

- The 1989 Celica was influenced by Calty's era of art and experimentation. The experimentation with plaster balloon shapes and use of ceramic clay resulted in the discovery of organic shapes.

Key Production Car Designs Supporting Regionalization:

2007 Tundra

- First production car design to emerge from Caltly Ann Arbor studio.
- At time of launch was “Most North American Truck”(designed, engineered and built in America)
- Concept version of Tundra was the 2004 FTX, which was unveiled at NAIAS.

2013 Avalon

- Caltly designed 2nd, 3rd, and 4th generation Avalon models. The 2013 model helps usher in a new more emotional design direction for Toyota’s flagship sedan in North America.

2013 NASCAR Camry

- Represented Caltly’s first collaboration with TRD and NASCAR to design an exterior for racecar

Key Concept Vehicles:

2003 FJ Cruiser Concept –

- FJ Cruiser Concept is a reinterpretation of the spirit of the FJ40 in a modern way.
- Some things had to change for production when designing the 2007 FJ Cruiser, but the essence of what was created in the concept still carries through in production design.

Toyota FT-HS

- Among the first early hybrid sports car concepts while Toyota’s early hybrid technology was still evolving.
- The Caltly design team was tasked with creating a mid-priced sports car concept that integrates ecology and emotion to address the question, “What is a suitable sports car for the 21st Century?”
- The FT-HS incorporates hybrid capability while maintaining sports car essentials, such as a sleek profile, lightweight aero-dynamic materials, and an advanced high-output powertrain for revolutionary acceleration and optimal performance.

Fun-Vii

- Affectionately referred to as a “smartphone on wheels”
- Advance connectivity concept

Lexus LF-LC

- Won the 2012 EyesOn Design Award for Best Concept Design at NAIAS, as well as the best concept design award at the Chicago Auto Show and Golden Marker Award in Japan.
- LF-LC was a design study created at Caltly to explore a future luxury coupe and Lexus design.
- 2 + 2 hybrid luxury sports coupe

Scion Fuse

- The Scion Fuse Concept became the 2011 Scion tC production car
- Exterior design inspired by racing helmet

- The Scion Fuse Concept's goal was to push the limits of a coupe concept by combining entertainment, digital technology, and versatility into one sinister looking package. Most importantly, its styling makes a visual statement about its intention to expand the performance envelope among affordable, entry-level sport coupes.
- Inspiration came from the "HAKO" super GT racing cars of Japan, commonly known as the JGTC series.