THE NEW YORKER

THE SHAPE OF THINGS TO COME

How an industrial designer became Apple's greatest product.

By Ian Parker

I. LAUNCH DAY

In recent months, Sir Jonathan Ive, the forty-seven-year-old senior vice-president of design at Apple—who used to play rugby in secondary school, and still has a bench-pressing bulk that he carries a little sheepishly, as if it belonged to someone else—has described himself as both "deeply, deeply tired" and "always anxious." When he sits down, on an aluminum stool in Apple's design studio, or in the cream leather back seat of his Bentley Mulsanne, a car for a head of state, he is likely to emit a soft, half-ironic groan. His manner suggests the burden of being fully appreciated. There were times, during the past two decades, when he considered leaving Apple, but he stayed, becoming an intimate friend of Steve Jobs and establishing the build and the finish of the iMac, the MacBook, the iPod, the iPhone, and the iPad. He is now one of the two most powerful people in the world's most valuable company. He sometimes listens to CNBC Radio on his hour-long commute from San Francisco to Apple's offices, in Silicon Valley, but he's uncomfortable knowing that a hundred thousand Apple employees rely on his decision-making—his taste—and that a sudden announcement of his retirement would ambush Apple shareholders. (To take a number: a ten-percent drop in Apple's valuation represents seventy-one billion dollars.) According to Laurene Powell Jobs, Steve Jobs's widow, who is close to Ive and his family, "Jony's an artist with an artist's temperament, and he'd be the first to tell you artists aren't supposed to be responsible for this kind of thing."

One morning in September, Ive was talking with a few friends, including Chris Martin, of Coldplay, and Stephen Fry, the British actor and writer, in a courtyard beside a community-college hall, a few miles from Apple's headquarters, in Cupertino. He wore pale, wide pants, cut as if for a chef, and tan suède Clarks shoes, and his hair was cropped. He was maintaining a look captured in a Playmobil figure of him, which his design colleagues made as a Christmas present a few years ago.

The seven-inch Ive had on sunglasses and carried an off-white Valextra briefcase. A photograph of the gift is the lock-screen image on Ive's iPhone.

Ive was brushing his hand across the top of his head, and talking quietly. He is impeccably solicitous, with frowns of attention and apologies for lateness or workplace untidiness, and he seems to extend this tone to everyone—including, presumably, to the crew of his twenty-seat Gulfstream GV, which he bought from Powell Jobs after her husband's death, in 2011. He communicates with his friend Paul Smith, the British fashion designer, largely through postcards that, as Smith recently recalled, contain "words like 'lovely,' 'special,' '*so* nice'—a language that is particular to his gentleness."

Later that morning, Apple was announcing new products and services, at the kind of event that the company, like a fashion house, stages a few times a year. Of a thousand attendees expected, a few dozen had been invited to the backstage courtyard. Among the guests were Rupert Murdoch; Kevin Durant, of the Oklahoma City Thunder; Marissa Mayer, of Yahoo; Jimmy Iovine, the C.E.O. of Beats; and the rapper and entrepreneur Sean Combs. (Fry later referred, fondly, to "Snoop Seany Sean," who was gracious when Fry nearly soaked him with a spilled drink.) That day, a hundred assembly lines in Zhengzhou, China, were turning out still secret new iPhones at a reported rate of seventy-five hundred an hour, and rumors about new Apple products, including a watch, were being posted online at nearly the same pace. Tim Cook, Apple's C.E.O., was somewhere nearby, preparing to speak to a hall full of enthusiasts and reporters, and to millions online. But Ive's role was limited largely to drinking coffee in misty sunshine. Jobs excused Ive from most public-speaking duties, and he has held on to the dispensation.

"I'm shy," Ive said. His London accent is intact after more than twenty years away. "I'm always focussed on the actual work, and I think that's a much more succinct way to describe what you care about than any speech I could ever make." He sounded calm, but he was fidgeting with his hands, as if trying to flick gum from his fingertips.

Behind Ive, at a distance that suggested self-exile, was Steve Wozniak, who, in 1976, co-founded Apple with Jobs, and who was wearing a black steam-punk watch the size of an ashtray. ("What *is* that?" Ive later asked, rhetorically, in mock affront at its design.) A colleague told Ive that, overnight, people had formed lines outside Apple stores, wrongly assuming that new devices would become available that day. Ive

recalled the first time he encountered a long queue: his parents took him to the Tutankhamun exhibition at the British Museum when he was five.

The day's event included a ten-minute film. Ive's reluctance to speak onstage has been offset by a willingness to appear in scripted videos. These productions—Ive speaking in earnest cadences, his head cocked forward like Pixar's Anglepoise lamp—have become so well known that IKEA recently parodied them, in an ad for its catalogue ("a device so simple and intuitive, using it feels almost familiar"). Such videos used to punctuate Jobs's onstage message. In the absence of Jobs, they carry the message. Apple's current leaders aren't without public-speaking skills, but they can't match Jobs's charisma, which was fortified by a hint of menace, and their performances can evoke the awkward informality—the dancing in lanyards—of a corporate retreat. By contrast, the virtual Ive seems to emerge from the same orderly, decontaminated place as an Apple product. He appears "rational" and "inevitable," to use the typical language. On Apple's Web page of executive biographies, fourteen men and women give welcoming smiles; Ive, the in-house outsider, faces the camera with album-cover gravity.

The new film did not show Ive's face, but he had narrated it, and largely directed and edited it. This work was done in Apple's design studio, which has a core team of nineteen industrial designers whose public recognition—even as their work has become unavoidable—has rarely extended beyond mentions in patent filings and affidavits. In a company with inexhaustible marketing resources, Ive's authorship of the film suggested fastidiousness about the seductive display of his work. But it was also an assertion of ownership that Jobs himself might have appreciated. Apple's designers have long had an influence in the company which is barely imaginable to most designers elsewhere. This power "was anointed to them by Steve, and enforced by Steve, and has become embedded culturally," in the description of Robert Brunner, who gave Ive his first job at Apple, and ran Apple's design group in the first half of the nineteen-nineties, before this culture took hold. Jeremy Kuempel, an engineer who interned at the company a few years ago, and has since launched a coffee-machine startup, told me that when a designer joined a meeting at Apple it was "like being in church when the priest walks in." Now, Brunner believes, "Jony has assumed the creative soul of the company."

VIDEO FROM THE NEW YORKER

The Traces of Nuclear Bombs

J. J. Abrams, the filmmaker and showrunner, is a friend of Ive's, but he could not attend the September launch, because he was shooting "Star Wars: The Force Awakens," in London. He later told me that Ive had shared some of the company's news in advance, and that they had discussed "the fact that we were both working on things that had a level of expectation and anticipation that was *preposterous.*" If Ive has learned to cope with pre-launch media fuss—snatched photographs of components, mockups of imagined goods—Abrams seems to relish it. As the event in California unfolded, he posted an image to Twitter using the hashtag #AppleWatch: a handwritten card ("Why do I suddenly have this desperate need to own a WATCH? Damn you, Apple!!!") lying on a polished surface that seemed to offer the first glimpse of the interior of a new Death Star.

At my first meeting with Ive, a few weeks earlier, he had worn a Jaeger-LeCoultre watch that he and an old friend, Marc Newson, the Australian-born designer, had customized for an auction benefitting Project Red, the charitable organization co-founded by Bono; they made three watches and kept one each; the third sold for three hundred and sixty thousand dollars. But now, in the courtyard of multimillionaires, Ive had a bare wrist, and it would remain so for a few more hours. He spoke of soon arriving at "this rarest of times—when we're *done*, and we get to talk about it." He added, "It's pretty strange. Where we're standing, right now, we haven't talked about it, and we can stand here in a couple of hours, and millions and millions of people will know." He went on, "You go from something that you feel

very protective of, and you feel great ownership of, and suddenly it's not yours anymore, and it's everybody else's. And it's a very—I think the word 'traumatic' is probably overstated, but it's a really significant point in time." He smiled. "These are very poignant points in time. It's so digital. It's so binary."

Newson had come to the gathering, and for a while Ive whispered affectionately with him and Powell Jobs. Before going indoors, Ive greeted Powell Jobs's twenty-three-year-old son, Reed, whose collar-length hair underscored his resemblance to his father at the same age. Ive held him in a hug, and exhaled: "Ahh!"

Inside the hall, Ive took a front-row seat, with Marc Newson on his left and Chris Martin on his right. Tim Cook came onstage. The audience applauded two redesigned iPhones and a new touchless payment system, which was introduced with a film that—like infomercials showing people in catastrophic interactions with Tupperware or garden hoses—may have overplayed the difficulty of taking a credit card from one's pocket. Then Cook borrowed a phrase of his predecessor's: "One more thing." Before long, jewelry was tumbling through white space, and Ive was talking about "beautiful objects that are as simple and pure as they are functional."

II. THE STUDIO

One morning at Apple's headquarters, a few weeks earlier, Ive recalled how, in 1997, the company seemed to be dying around him. "Every story you'd read, every morning before coming to work, started with the phrase 'The beleaguered computer maker, Apple,' " he said. Ive was then thirty; after five years at the company, he had become its head of industrial design. "There was a *Wired* cover that had a big Apple logo with a crown of barbed wire, as thorns, and underneath it just said, 'PRAY.' I remember this because of how upsetting it was. Basically saying: either it's going to just go out of business or be bought."

The *Wired* article appeared that June. The next month, Jobs, who had left Apple twelve years earlier, and gone on to launch Pixar and NeXT, returned as Apple's C.E.O., supplanting Gilbert Amelio. Jobs and Ive had an intense first meeting. Ive said, "I can't really remember that happening really ever before, meeting somebody when it's just like that"—he snapped his fingers. "It was the most bizarre thing, where we were both perhaps a little—a little bit odd. We weren't used to clicking."

Assuming the worst, Ive had a resignation letter in his pocket. Indeed, Jobs's initial instinct had been to hire a new designer. He had approached Richard Sapper, who

designed I.B.M.'s ThinkPad—a black cigar box. (Sapper was tempted, he told me, a little ruefully, but didn't want to abandon his I.B.M. contract for a "tiny, tiny company.") Jobs had also met with Hartmut Esslinger, who, as a consultant, was Apple's industrial designer in the eighties. Esslinger, in an e-mail, recalled telling Jobs that Apple's existing team, including Ive, "was very talented and competent if given the right leadership." Esslinger, who has more design-guru swagger than Ive, also takes some credit for what happened next: he said that he encouraged Jobs to refocus the company on "evolving digital-consumer trends."

Jobs visited the design studio and, as Ive recalled it, said, "Fuck, you've not been very effective, have you?" This was a partial compliment. Jobs could see that the studio's work had value, even if Ive could be faulted for not communicating its worth to the company. During the visit, Ive said, Jobs "became more and more confident, and got really excited about our ability to work together." That day, according to Ive, they started collaborating on what became the iMac. Soon afterward, Apple launched its "Think Different" campaign, and Ive took it as a reminder of the importance of "not being apologetic, not defining a way of being in response to what Dell just did." He went on, "My intuition's good, but my ability to articulate what I feel was not very good—and remains not very good, frustratingly. And that's what's hard, with Steve not being here now." (At Jobs's memorial, Ive called him "my closest and my most loyal friend.")

Ive was sitting in a corner of Apple's first-floor industrial-design studio, in front of a translucent window that gave a view only of the nodding shadows of tree branches. Steve Jobs's top-floor corner office, untouched since his death, is one link away, in the campus's ring of six banal four-story buildings, arranged around a lawn. The campus, on a street named Infinite Loop, was built in the early nineteen-nineties. A covered corridor connects One Infinite Loop (Jobs's office) and Two Infinite Loop (Ive's lab). Just before Ive took me into the studio for the first time, he remarked that all the buildings were similarly linked. A colleague corrected him: this was true only of One and Two. Ive said, "Really?" The error suggested something about the design studio's place in the Apple universe. It also suggested that the layout of a new campus currently being built nearby—a ring-shaped low-rise with a diameter of sixteen hundred feet—might have a largely symbolic connection to workplace togetherness.

An invitation to visit Apple's studio is rare, and is withheld even from most employees. Inside the door, a ten-foot-long internal vestibule, in stainless steel, serves

as a visual air lock. One's view is largely restricted to the desk of Harper Alexander, an office manager, who—in a corporate culture ruled by reticence—has an unusually lively Twitter presence. ("Playing COUNTING CROWS and HOOTIE in the Apple design studio. Everyone in here who loves Euro douchepop just literally died.")

That morning, the douchepop—a mix that included Yaz and The Rapture—was set at low volume, as were the employees, who spoke in murmurs and moved silently on sneakered feet. Later that day, I met Eugene Whang, one of the designers; he referred to a second career as a d.j. and a music promoter, and noted that we were listening to a set that he and a friend had performed at Le Bain, in the Standard Hotel, in New York's meatpacking district. (It is not enough to have co-created the iPhone.) Whang and his colleagues—they include an Austrian-born surfer, Julian Hönig, who used to design Lamborghinis—tend to be as low-key as their boss, and their fame extends barely beyond the studio door. But their multinationalism, and their lives of individual affluence and shared reputation, would be familiar to soccer players on Europe's grandest teams. Apple employs three recruiters whose sole task is to identify designers to join the group; they find perhaps one a year. Not long ago, Whang posted online a photograph of a handsome white helicopter, captioned, "The new Mori City Air Service from Narita to Tokyo is amazing. 30 mins total travel time. It's pricey, but sometimes definitely worth it. The Hermès edition is upholstered in their classic canvas, with leather trim details and calf leather seats."

Ive, wearing a royal-blue T-shirt, was affable, but there was little trace of English irony. "I think you can reserve that for entertainment," he later said. "And not practice that professionally." In our conversations, his manner could sometimes be unsettling for the way it combined the tender attentiveness of a suicide-prevention volunteer—"I was *ever so* lucky"; "I *do* hope you have a good flight"—with a keenness to move the conversation from the particular to the general; his replies, searching for the safe ground of a previously expressed thought, often looped and hedged, or drifted off into a sigh. At first attempt, Ive ran through the first twenty-five years of his life in sixty words; he told me which novel he was reading only after designating the answer off the record.

That morning, Ive told me that, before Jobs replaced Amelio, the studio's work on an iMac-like device "was of no interest to the company." The comment was surprising: Ive tends to be strenuously courteous toward his employers. (In a 1997 book, he was quoted saying, "Gilbert Amelio gives more support to industrial design than any C.E.O. in Apple's history." He also said, "For a designer, there couldn't be a more

exciting place to work at this moment than Apple.") His public persona is not merely evidence of corporate fealty; he has a serious man's resistance to perceived trivia, and a genuine discomfort with self-exposure. Yet the effect is the same: in Ive's view, his personal story is barely worth telling. This habit of rhetorical modesty has lately been complicated by an immodest business truth: more than ever, Ive *is* the company.

After passing through the vestibule, Ive said, "I can't emphasize enough: I think there's something really very special about how *practical* we are. And you could, depending on your vantage point, describe it perhaps as old-school and traditional, or you could describe it as very effective." To our left was an open kitchen with tables and benches, a vintage Faema espresso machine, and a wall of books that included "100 Superlative Rolex Watches" and a study of Joe Colombo, the designer best known for his round-cornered Kartell storage carts. The kitchen flowed into an area of individual workstations. To our right was a brightly lit room where a dozen oak worktables stood, in tidy formation, on a polished-concrete floor.

The room is about three thousand square feet, though its outsized reputation has led it to be described as "cavernous." It ends in a glass wall, behind which stand three eight-foot-high computer-numerical-control (C.N.C.) milling machines that shape plastic and metal to produce models and prototype parts. When Ive designed the space, at the turn of the century, he wanted these machines to be as integrated into the studio as noise and dust pollution allowed. "They make physical objects, and that is what we're doing," he told me. Milling machines help turn a studio into a workshop; they reinforce Ive's view that bad industrial design often starts in ignorance of what a material can and cannot do.

The worktables are higher than a desk but a little lower than the Apple Store tables they inspired. This height—arrived at after much reflection—accommodates seated study and standing visits. (Risking self-parody, Ive later referred to the "simplicity and modesty" of the arrangement.) Samsung Electronics sells vacuum cleaners as well as phones, and employs a thousand designers. Apple's intentions can be revealed in one room. Each table serves a single product, or product part, or product concept; some of these objects are scheduled for manufacture; others might come to market in three or five years, or never. "A table can get crowded with a lot of different ideas, maybe problem-solving for one particular feature," Hönig, the former Lamborghini designer, later told me. Then, one day, all the clutter is gone. He laughed: "It's just the winner, basically. What we collectively decided is the best." The designers spend

much of their time handling models and materials, sometimes alongside visiting Apple engineers. Jobs used to come by almost every day. Had I somehow intruded an hour earlier, I would have seen an exhibition of the likely future. Now all but a few tables were covered in sheets of gray silk, and I knew only that that future would be no taller than an electric kettle.

The cloth covering the table nearest the door was curiously flat. "This is actually complicated," Ive said, feeling through the material. "This will make sense later. I'm not messing with you at all, I promise."

In an environment of dust sheets and undecorated walls, a bag of Whole Foods nuts, on a shelf, makes a loud claim for attention. But the room's minimalism derives from nondisclosure more than from dogma. Ive's aesthetic is not austere: one could think of the work done here as a reticent man's idea of exuberance, with rapture expressed in the magnetic click of a power adapter. Richard Seymour, a British designer who has known Ive for years, recently referred to his friend's "emotionally warm modernism." Clive Grinyer, a friend and former London colleague of Ive's, said, appreciatively, "He's always been a bit bling." Paola Antonelli, the senior curator of design and architecture at MOMA, who has added many Apple products to the museum's collection, praised an innovation that indicated when a closed laptop was in "sleep" mode: a light glowed on and off twelve times a minute, like a restful person breathing. "Jony knows that I was transfixed," she said. "They had to abandon it because it kept people awake when it was on the bedside table." (Apple disputed this explanation.) "It was round and pulsating and it was just amazing."

A door briefly opened, and I saw flashes of color pinned to a wall. (This, Ive later explained, was the conference room where the Apple Watch film was being storyboarded.) Then we stopped in Ive's office, a twelve-foot square separated from the studio by a glass wall. On shelves, Ive had set his Playmobil likeness and similar gifts, along with dozens of custom sketchbooks that had padded blue covers and silver edging. On the floor, behind a Marc Newson desk, was a rugby ball. Overlapping framed images leaned against the wall: a Banksy print of the Queen with the face of a chimpanzee, and a poster, well known in design circles, that begins, "Believe in your fucking self. Stay up all fucking night," and ends, many admonitions later, "Think about all the fucking possibilities."

That text could be thought of as a supplement to design principles set down by Dieter Rams, the German designer celebrated for pale, clean-lined, Bauhaus-

inspired work, largely at Braun. (Ive greatly admires Rams, but his debt to him has sometimes been overstated, and it's worth noting a difference of manufacturing scale: Rams's Braun products sold in the thousands, occasionally the millions; Apple has sold one and a half billion things designed by Ive.) In Rams's formulation, a new object should be innovative, useful, aesthetic, understandable, unobtrusive, honest, long-lasting, thorough, and environmentally friendly, and feature "as little design as possible." Ive flicked through a sketchbook, giving me time to see that, like Leonardo da Vinci, he sometimes uses brown ink. There was a little drawing of something that may have been a latch and, in tall, skinny script, the words "pretension" and "smart." On another page—Apple's competitors may do with this what they like—Ive seemed to have written the word "Airbug."

Back in the main room, Ive noted that he'd been watching "Moon Machines," an old Discovery Channel series about the Apollo program. "There was the realization we needed to develop a spacesuit, but it was hard to even know what the goals should be," he said. And then he linked the studio's work to NASA's: like the Apollo program, the creation of Apple products required "invention after invention after invention that you would never be conscious of, but that was necessary to do something that was new." It was a tic that I came to recognize: self-promotion driven by fear that one's self-effacement might be taken too literally. Even as Apple objects strive for effortlessness, there's clearly a hope that the effort required—the "huge degree of care," the years of investigations into new materials, the months spent enforcing cutting paths in Asian factories—will be acknowledged.

We walked toward a lower table in the corner of the studio. The young computer-design technicians sitting there realized, after a moment's delay, with nothing said, that they were expected to move. We sat on peculiarly low benches, and two of Ive's designers joined us. Jody Akana, who is in her thirties, is unusual in the group for having a declared specialty: color. Bart André is fifty, and tops the list of Apple employees with design patents. (Neither had ever previously spoken to a journalist.) "I watched the spacesuit one last night," Ive told André.

"They play together, they work together, and they protect each other," Robert Brunner, the former Apple design chief, later said of the team. At one of our meetings, Ive reminded me of a short article that Bono wrote about him in *Time*. It said, "To watch him with his workmates in the holy of holies, Apple's design lab, or on a night out is to observe a very rare esprit de corps. They love their boss, and he loves them. What the competitors don't seem to understand is you cannot get people

this smart to work this hard just for money." Ive, Bono's friend, described these comments as "shockingly perceptive"—which is an unusual response to praise, even shared praise. But the strength, and the professional advantage, of the team's solidarity is one of Ive's recurring themes. He was determined to counter "spiteful," if infrequent, claims that the studio's spirit is not as collegial as it looks. Doug Satzger, who left Apple in 2008, and now runs industrial design at Intel, told *Fast Company* that "Jony has a very political agenda when it comes to his positioning within the company. He would tell me, 'Anytime you meet with Steve, I gotta know.' " (Satzger declined to comment.)

Ive said that, in fifteen years, only two designers have left the studio—one of them because of ill health. He regards this as a clinching argument about harmoniousness. It isn't: many people put up with unhappy workplaces. But even Satzger's public remarks have been largely admiring. It's easy to imagine that the studio's hushed zeal might strike some as claustrophobic and priggish. And it might be unnerving when, in company negotiations, a designer's composed bearing carries steely intent. (Richard Howarth, a veteran Ive lieutenant, soft-spoken and British, is considered "a badass, in terms of driving things," I was told, half-jokingly. "He's *feared.*") But it's hard to mount a challenge to the consensus that Ive, however vexed and self-conscious, is a good egg. He has the soreness of a man who took all but one vote in a popularity contest.

Team members work twelve hours a day and can't discuss work with friends. Each project has a lead designer, but almost everyone contributes to every project, and shares the credit. (Who had this or that idea? "The team.") Ive describes his role as lying between two extremes of design leadership: he is not the source of all creativity, nor does he merely assess the proposals of colleagues. The big ideas are often his, and he has an opinion about every detail. Team meetings are held in the kitchen two or three times a week, and Ive encourages candor. "We put the product ahead of anything else," he said. "Let's say we're talking about something that I've done that's ugly and ill-proportioned—because, believe you me, I can pull some beauties out of the old hat. . . . It's fine, and we all do, and sometimes we do it repeatedly, and we have these *seasons* of doing it—"

"I had one last week," Akana said.

"Which one?" he asked.

"The packaging thing," she said.

"That's true," Ive said, laughing. "It was so bad."

Akana had proposed that an Ultrasuede cloth inside the box for a gold version of the Apple Watch should be an orangey-brown. Ive had objected with comic hyperbole, comparing it to the carpeting in a dismal student apartment. In the same amused spirit, Akana had then asked, "So you don't like it?"

Jobs's taste for merciless criticism was notorious; Ive recalled that, years ago, after seeing colleagues crushed, he protested. Jobs replied, "Why would you be vague?," arguing that ambiguity was a form of selfishness: "You don't care about how they *feel!* You're being vain, you want them to like you." Ive was furious, but came to agree. "It's really demeaning to think that, in this deep desire to be liked, you've compromised giving clear, unambiguous feedback," he said. He lamented that there were "so many anecdotes" about Jobs's acerbity: "His intention, and motivation, wasn't to be hurtful."

Even if Jobs had rescued him from vagueness, it was odd for Ive to bring this up now, immediately after I'd learned how to reject a color without causing injury. "I've seen Jony deeply frustrated, but I've never seen him rant and rave," Laurene Powell Jobs said, and she added, laughing, that she would not have said the same of her husband. (And it's hard to imagine Ive using a disabled-parking spot, as Jobs often did, long before he was unwell.) Ive likes to be liked; the story seemed to be a preëmptive defense of Jobs veiled as self-criticism. It was also an indirect response to Walter Isaacson's 2011 biography of Jobs, which, though not hostile, included examples of unkindness. In a later conversation, Ive said that he'd read only parts of the book, but had seen enough to dislike it, for what he called inaccuracies. "My regard couldn't be any lower," he said, with unusual heat.

Ive went off to make some calls, and André described his own routine: he tends to arrive at five or six in the morning, and often then designs geometrically complex objects that he asks the machinists to mill. He called it a hobby, but, as Akana explained, "We'll have a meeting about a speaker-hole pattern, or something, and Jony will say, 'Bart, can you get your box of patterns?' "

André agreed to fetch, from his desk, something that he had been using as a coaster. Made of hard white ABS plastic—the material of Legos, and of thousands of Apple studio models a year—it was a disk punctured by evenly arranged holes. Or, as André

put it, "There's a hexagon pattern of negative shapes that are subtracted from the material from one side, and then there's the same pattern, subtracted from the material from the other side. But it's offset, so that the intersection between the two subtractions makes interesting shapes." He rubbed it on his shirt, to remove coffee stains, before passing it to me.

III. MANAGING NEWNESS

Three years ago, Ive's responsibilities expanded to include software as well as hardware. He took charge of what Apple calls Human Interface: typefaces, icons, swipes, taps. In 2013, the company released the iOS7 operating system for the iPhone and the iPad, and the overhaul included a new range of sounds for incoming calls, texts, and e-mails. Before, the alerts had mostly a strained, jokey relationship with the real world, as suggested by such names as Duck, Choo Choo, and Doorbell. iOS7 introduced refined snatches of electronica created, in part, by Hugo Verweij, a Dutch sound designer who, before being hired by Ive, had a Web site selling "minimalist ringtones." (On his blog, Verweij had expressed bafflement with Apple's "loud and crappy" sounds.) Some Apple customers may have found the new tones unappealing—too modish, or too European—and they may have switched back to the goofy, "classic" sounds that had been relegated to a lower-rung menu. But others may have had the thought, or the half-thought, that the sounds made the phones more coherent—a more natural accompaniment to glass, aluminum, and Helvetica Neue.

Ive manages newness. He helps balance the need to make technological innovations feel approachable, so that they reach a mass market—Choo Choo—with the requirement that they not be ugly and infantile. Apple has made missteps, but the company's great design secret may be avoiding insult. Antonelli, of MOMA, described Apple's design thoughtfulness as "a sign of respect," and added, "Elegance in objects is everybody's right, and it shouldn't cost more than ugliness."

"So much of our manufactured environment testifies to carelessness," Ive said, as he and I were driven, early one evening, from the flat sprawl of Cupertino to a hilltop in central San Francisco, where he lives in a two-bedroom house with his British wife, Heather, a former arts administrator, and their ten-year-old twin boys, who pronounce "aluminum" in the English way, and have strict rules about screen time. (A few years ago, the Ives bought a nineteen-twenties mansion in Pacific Heights, with striking views, and Ann Getty and Larry Ellison as neighbors. The house is

undergoing a seismic renovation. The Ives also own a beach house on the Hawaiian island of Kauai.)

We were in the fast lane of I-280, in squinting low sunshine. When I asked for examples of design carelessness, Ive cranked the conversation back to Apple. He has the discipline to avoid most indiscretions, but not always the facility to disguise the effort. "At the risk of sounding terribly sentimental, I do think one of the things that just compel us is that we have this sense that, in some way, by *caring*, we're actually serving humanity," he said. "People might think it's a stupid belief, but it's a goal—it's a contribution that we can hope we can make, in some small way, to culture."

Ive acknowledged that he and Marc Newson, who recently joined Apple as a London-based employee, could "incite ourselves to a sort of fever pitch" of design distress; they'll complain about things "developed to a schedule, to a cost," or "developed to be different, not better." He and Newson are car guys, and they feel disappointed with most modern cars; each summer, they attend the Goodwood Festival of Speed, where vintage sports cars are exhibited and raced in the South of England. "There are some shocking cars on the road," Ive said. "One person's car is another person's scenery." To his right was a silver sedan with a jutting lower lip. Ive said, quietly, "For example." As the disgraced car fell behind, I asked Ive to critique its design: "It is baffling, isn't it? It's just nothing, isn't it? It's just insipid." He declined to name the model, muttering, "I don't know, I don't want to offend." (Toyota Echo.)

We were in Ive's black Bentley, which is as demure as a highly conspicuous luxury car can be. The hood barely sloped, and it met the car's front end at a tightly curved corner that mirrored the iPhone 6 in Ive's left hand. We were in the back seat: Ive has reluctantly accepted the services of a driver. Ive said to him, "It's just over a year, isn't it, Jean?"

Ive would prefer an unobserved life, but he likes nice things. He also has an Aston Martin DB4. He acquired his first Bentley, a two-door model, ten years ago, after an inner zigzag between doubt and self-justification. "I've always loved the big old-school square Bentleys," he said. "The reasons are entirely design-based. But because of the other connotations I resisted and resisted, and then I thought, This is the most bizarre vanity, because I'm concerned that people will perceive me to be this way—I'm *not.* So I'm going to—" A pause. "And so I am uncomfortable about it."

Jeff Williams, Apple's senior vice-president of operations, drives an old Toyota Camry. Ive's verdict, according to Williams, is "Oh, God."

The view from the Bentley was of dry, yellow fields. "Isn't this beautiful?" Ive said. "Long shadows, and the sun just tripping over the tops of the trees." He spoke of landscapes in Marin County, north of San Francisco, that evoke the southwest of England: "Like Devon, some of it, isn't it? Cornwall. Exmoor."

Ive's parents now live in that part of England, and Ive, too, once had a house there, but he grew up in Chingford, in London's middle-class northeastern suburbs. There was a Rams-designed Braun MPZ 2 Citromatic juicer in the kitchen. "No part appeared to be either hidden or celebrated," he later wrote. He was exposed early to tools. "I was so incredibly lucky to grow up in the context of workshops," he told me. He acquired "a natural understanding that everything here"—highways, bridges, Toyotas—"is *made*, and is the consequence of multiple decisions." His roots are working class: his paternal grandfather and great-grandfather were skilled metalworkers. His father, Michael, now retired, was a secondary-school teacher of design and technology, and then a government adviser on design education. Ive's mother was a theology teacher and, later, a therapist; his younger sister became a consultant for nonprofits in London. Marc Newson sees an economic similarity between Ive's upbringing and his own. "Neither of us came from particularly privileged backgrounds," he said, when we met. "A lot of what I've done has been an effort to try to have the things that I didn't own when I was a child." Newson was carrying a six-thousand-dollar Louis Vuitton backpack, of his own design. Ive, the owner of a jet, was twenty-one before he experienced air travel.

Michael Ive said that the scale of his son's talent manifested itself in childhood. He recalled an ingenious obstacle course, in wood and cardboard, for a pet hamster, and a drawing of a scuba diver that was "so accurate in its perspective, with an astonishing sense of movement." When Jonathan was thirteen, the family moved to Stafford, in the Midlands. At this age, Ive said, he was nicknamed Tiny, because "I was as big as I am now." He was selected to play rugby for his county. When necessary, he has been able to access aggression. "You don't play politely," Ive later explained, laughing. "But you play as a team, and if you don't play hard your team's going to get hurt." At school, he met Heather Pegg, his future wife, and wore his hair in a post-punk mullet.

In 1985, Ive began studying industrial design at Newcastle Polytechnic (now Northumbria University). He had the profound experience of using a Mac for the first time: "I had a sense of the values of the people who made it." He had two half-year internships at a London design firm, and his adeptness was embarrassingly evident: according to Clive Grinyer, who met him in that office, Ive was given some of the company's most important work. Grinyer recalled visiting Ive in Newcastle: "I stayed the night in his living room, surrounded by hundreds of foam models—all white, of course. There was that little tiny difference between each one." He called Ive "the most focussed human being I've come across." This is also Ive's description of Jobs.

Ive told me that, since childhood, he has been "consumed with work." It's unrewarding to question him about the movies, books, and night clubs of his youth, although at some point he acquired an abiding taste for dance music, and he has since become friends with John Digweed, the British d.j., and the members of Massive Attack. (He is also a friend of Yo-Yo Ma.) In the summer of 1987, midway through college, he married Heather, who was studying English literature at Newcastle University.

He won a national student design competition two years running, once for a white desk phone that had a handset with a long handle, like a lorgnette. He pooled two travel scholarships and, in the summer of 1989, after he had received the highest category of degree, he travelled in the United States. Robert Brunner had recently founded a design consultancy, Lunar, in San Francisco. He wanted to hire Ive moments after meeting him: Ive was "a sweet, enthusiastic guy," and his portfolio was extraordinary, in part because "he *had figured it all out*." Although people may think of industrial design "as the concept and renderings and models and all the creative stuff," Brunner said, it's ultimately about "delivering something." Ive had brought a model of his desk phone, which he took apart to show how the internal components coexisted. The model's outer casing was the exact thickness that it would be in a finished phone. "You *never* see that from a student," Brunner said.

Ive could not move to California; he had already committed to work at the company where he had interned. A little later, he became the third partner in Tangerine, a London design consultancy co-founded by Grinyer. His projects included a long-toothed barber's comb embedded with a level, for cutting flattops. "I think I'm just a dreadful businessperson," Ive said, on our drive: a consultant is forever hustling for new work, and can never have the same impact on a company's design direction as

an in-house practitioner. And the work may feel purposeless: as Ive had put it, "I don't think the world needs another microwave oven."

In the early nineties, near the end of his time at Tangerine, Ive worked with two key clients. Ideal Standard, a British bathroom-ceramics manufacturer, commissioned a sink, a toilet, and a bath. In the Bentley, Ive drew the sink in my notebook: a half-oval atop a column that, as it tapered down, angled away from the wall. "It was a very, very simple bowl, and the rim was thick but it twisted," he said. "It was sort of tipped open at the front."

Ive also designed a tablet computer. In 1989, Brunner had joined Apple, to lead its design team; by 1991, the company was close to releasing its first laptop, the PowerBook 100. In a commission whose true purpose was to persuade Ive to take a job at Apple, Brunner asked Tangerine to explore other concepts in mobile computing.

Ive visited the headquarters of Ideal Standard and Apple, and recognized the contrast in his tasks. In the case of the sink, "the form wasn't following the function," he told me. "The form was the function. It functioned as a washbasin because of the shape." Ive made this sound equally restricting and ennobling. "You had a real sense of your grounding in ancient history," he said. "There was such a purity to the problem."

At Apple, "the products were incredibly complex, and you realized that you had this dizzying liberty," he said. "Of course, you were trying to figure out an architecture, and form, that addressed certain issues of function." But an Apple product could take many different shapes, some of which would be "completely unhelpful in helping you understand what the object was." Although there had long existed tools and machines whose function might puzzle a non-specialist, the integrated circuit had introduced a new level of inscrutability, where "people could look at an object and have not the first clue what it was and how it worked." His tablet concept, the Macintosh Folio, had a stylus and an adjustable angled screen, and carried the suggestion of a drawing board.

In the spring of 1992, before a general election that the Labour Party was expected to win, after thirteen years of Conservative Party rule, Tangerine presented its bathroom at Ideal Standard's headquarters, in Hull. Grinyer is still annoyed that the company rejected it. One complaint, he recalled, was that if the sink's column fell it

might kill a child; he thought that the column shared this attribute with other big ceramic objects.

The Tangerine partners then visited Apple in California. When they landed back in London, they were greeted by the news that the Conservatives had won. "It was fucking depressing," Grinyer recalled. "And Jon does like nice weather."

Ive moved to San Francisco that September. Not long afterward, he bought a yellow Saab convertible. In Silicon Valley, he responded to "a completely unaffected, completely authentic optimism." He told Stephen Fry that he had discovered, in America, "a conspicuous lack of cynicism, and skepticism."

The sun had set by the time we reached his house. "Thanks ever so much, Jean," Ive said. He unlocked a wooden gate, apologizing for the darkness.

Since joining Apple, Ive has occasionally taken on outside projects. In 2001, he created a white polystyrene box to house a book by Paul Smith. In 2013, an aluminum desk that Ive and Newson designed for the Project Red auction sold for $1.7 million. And Ive once sat next to J. J. Abrams at a boozy dinner party in New York, and made what Abrams recalled as "very specific" suggestions about the design of lightsabres. Abrams told me that "Star Wars: The Force Awakens" would reflect those thoughts, but he wouldn't say how. After the release of the film's first trailer—which featured a fiery new lightsabre, with a cross guard, and a resemblance to a burning crucifix—I asked Ive about his contribution. "It was just a conversation," he said, then explained that, although he'd said nothing about cross guards, he had made a case for unevenness: "I thought it would be interesting if it were less precise, and just a little bit more *spitty*." A redesigned weapon could be "more analog and more primitive, and I think, in that way, somehow more ominous."

Over the years, Laurene Powell Jobs has consulted Ive about eyeglasses, flatware, and the proper height of countertops. "He's so good on proportion and dimension," she said. "Really, if you ever need buttons for things designed, for doors or lights, you should just stay in touch with him." We were in the offices of the Emerson Collective, her education-oriented nonprofit, in Palo Alto. She protected an Arne Jacobsen conference table with two felt coasters: one for her coffee cup, and the other for its plastic lid.

Steve Jobs, like Ive, grew up with a father who could build things. The son became a discriminating, difficult critic of his manufactured environment. Powell Jobs, who

has an open, amused manner, said, "I never thought about a sconce before I met Steve. Steve would have a definite point of view about this ceiling. And I learned about mullions." She was looking at the window. "These mullions are quite thick, and probably overly so."

For years, the family's Palo Alto home was underfurnished; Jobs tore photographs of things he liked out of magazines or books, but didn't buy them. He often complained —"You don't want to know," Powell Jobs said—about one or other switch ruining the experience of his Mercedes. He craved products that didn't force adjustments of behavior, that gave what Powell Jobs called a "feeling of gratitude that someone else actually thought this through in a way that makes your life easier." She added, "That's what Steve was always looking for, and he didn't find it until he worked with Jony. . . . They were really happy, they relished each other."

Toward the end of his life, Jobs told Walter Isaacson, "If I had a spiritual partner at Apple, it's Jony. Jony and I think up most of the products together and then pull others in and say, 'Hey, what do you think about this?' He gets the big picture as well as the most infinitesimal details about each product. And he understands that Apple is a product company. He's not just a designer. That's why he works directly for me. He has more operational power than anyone else at Apple except me." Richard Seymour, the British designer, described the bond between Jobs and Ive as one "between a savant-level aesthete and an incredible craft-capable practitioner." According to Powell Jobs, "Steve wasn't someone who sketched stuff. So he never felt that he actually designed everything. But I think that they both felt like things were made possible because of the two of them." (Jobs and Ive had different dispositions, but perhaps shared a lack of social smoothness, and it seems fitting that one of their great joint achievements was to give digital distractions to people forced to ride in elevators with nodding acquaintances.)

I had previously asked Ive about the rounded corners and edges that have long helped distinguish an Apple product from a ThinkPad or a book. (As Apple's product range has narrowed to a series of flat rectangles, these transitions have become a surviving zone of pure industrial design.) On a day when Ive was so exhausted that it seemed possible he might fall asleep while talking, he became animated when describing the "primitive" design geometry that was usual before the computer era—essentially, two straight lines joined by a fragment of a circle. He then spoke of the opportunities that now exist, if the material permits, to take a more elegant path from one line to another; he talked of tangency breaks and Bézier

surfaces. When I mentioned this to Powell Jobs, she cried out, “Yes! That is *such* a breakthrough, I forgot about that.” For each product, Jobs and Ive would discuss corners “for hours and hours.” She later noted that she and Ive share a taste for Josef Frank, the Austrian-Swedish designer of rounded furniture and floral fabrics, who once announced, in a lecture, “No hard corners: humans are soft and shapes should be, too.”

Clive Grinyer visited Cupertino in the mid-nineties, before Jobs returned. Ive “was detailing printer lids,” he said. “He was close to leaving. And, good Lord, if he had actually left, the world would be entirely different.” Recalling this time, Michael Ive said, “Part of me thought, Oh, good, we’ll see him at home again.” Jonathan Ive has little appetite for discussing this period. He worked so hard that Brunner worried about his health; his designs—notably, the second iteration of the Newton personal organizer and, later, the Twentieth Anniversary Mac—were, in Brunner’s admiring description, “somewhat expressive, but still fairly tight and fairly crisp.” At the start of 1996, Brunner left Apple for Pentagram, the international design firm. He recommended Ive as his successor, but, later, he also tried to tempt him away. “I would have loved to have him as a partner at Pentagram, and I told him that,” Brunner said. “But he was ‘I’ve got to wait this out and see where it goes.’ ”

Ive had been in charge for two and a half years when the iMac appeared, in the summer of 1998. Jobs later took much of the credit for its conception, although most other accounts, including Ive’s, suggest that the studio had come up with something quite like the iMac before his return. According to Ive, Jobs said, “Make it lickable.” (Craig Federighi, the senior vice-president of software engineering, attended a meeting where executives were shown a late iMac prototype. “Jony was showing off the case,” he recalled. “Steve was poking at the seams, and turning to Jony: ‘Maybe we could do something with the edge.’ ”) The computer’s design had the giddiness of a pardoned prisoner. At Braun, Dieter Rams had relieved consumer electronics of the need to pose as furniture. A radio could be a box. Apple’s instinct, at this moment, was to do the reverse: to domesticate a machine still largely associated with technical tasks and the workplace. (A few years earlier, in a concept design for an all-in-one computer, Ive had hidden its screen behind credenza doors, which is about as close as hardware comes to a quacking ringtone.) The computer, first sold in food-dye blue, had a handle, and curves that cheerfully acknowledged its unwieldy main component, a cathode-ray tube.

The iMac, relaunching Apple, fully launched Ive. For more than a decade, Jobs and Ive lunched and travelled together. Jobs liked to tease him for what he saw as Britain's imperial delusions—"All hat and no cattle," in Powell Jobs's summary—but Ive told me that, on one visit to the U.K., he and Jobs spent a morning with Prince Charles, at Highgrove, his country house. Bob Mansfield, a former senior hardware engineer at Apple, who is now semi-retired, recently described the pique that some colleagues felt about Ive's privileged access. As he put it, "There's always going to be someone vying for Dad's attention." But Mansfield was grateful for Ive's cool handling of a C.E.O. who was "not the easiest guy to please." Mansfield's view was "Jony puts up with a lot, and, as a result of him doing it, people like me don't have to."

Ive's dominance wasn't immediate. Michael Ive recalled a conversation he had with his son in 2001: " 'It'll have a thousand songs, Dad.' I said, 'Who wants a thousand songs?' He said, 'You'll see.' " Tony Fadell, a former Apple engineer who can take much of the credit for the iPod's functionality, was recently quoted by *Fast Company* as saying, "We gave it to Jony to skin it." That is, Ive's contribution was to combine, as elegantly as possible, elements decided largely by engineers and others: a battery, a disk drive, an L.C.D. screen, a track wheel. Fadell went on to found Nest, which was later bought by Google; he recently took charge of Google Glass. His phrase may have been strategically irreverent—"We've never skinned anything," Tim Cook told me in response—but it contained at least a partial truth. Ive gave the music player an irresistible white-and-silver form, causing a generation of designers to endure clients asking for the "iPod version" of this or that. (Richard Seymour, in London, recalled a meeting about the iPod of moisturizers.) But the industrial-design studio was not yet the company's central workshop.

A few years later, in 2004, a visitor to the studio might have noticed a rudimentary, oversized touch-responsive screen lying on a table. "It was very crude, involving projectors," Ive said. The studio hadn't invented the essential technology—nor, indeed, had Apple engineers—but the designers helped guide it to market, over years. Ive was now involved "in the fundamentals of the products—how to build them efficiently, the technology, how to cool them," as Bob Mansfield put it. Ive told me that he initially pressed for a tablet, then agreed with Jobs that a phone should come first: a tablet would have presented consumers with a new category of machine, and a new way of communicating with a machine, all at once. By the time the iPhone was launched, in 2007, Ive had become "the hub of the wheel," Mansfield said.

Typically, Robert Brunner explained, design had been "a vertical stripe in the chain of events" in a product's delivery; at Apple, it became "a long horizontal stripe, where design is part of every conversation." This cleared a path for other designers. In 2007, Brunner formed his own consultancy, Ammunition, and began working with Beats, a new headphone company founded by Jimmy Iovine and Dr. Dre. Brunner's firm was integrated into the Beats process to a degree that was made possible, he said, by Apple's example. Ive, Brunner said, had "single-handedly elevated our craft to a level that it's never been at before."

Ive's studio assumed power from manufacturers as well as from engineers. Jeff Williams, the senior vice-president, recalled an early iMac revision. "We announced it, and it was beautiful," he said. "But we couldn't figure out how to produce them." Ive and Dan Riccio, now Apple's senior vice-president of hardware engineering, spent eight weeks at LG Electronics, the computer's South Korean manufacturer. "The folks at LG were doing a lot of the designing for us," Riccio said. "Today, we do it a hundred per cent in-house."

Apple's designers still visit factories, but a final prototype part from Cupertino is not the start of a conversation; it's the part. Ive gave me a tour of the area in the studio behind the glass, where, beyond the milling machines, there's also a color lab. He said, "Years ago, you thought you'd fulfilled your responsibility, as a designer, if you could accurately define the form"—in drawings or a model. Now, Ive said, "our deliverable just *begins* with form." The data that Apple now sends to a manufacturer include a tool's tracking path, speed, and appropriate level of lubricant. Ive noted that the studio's prototyping expertise creates the theoretical risk of beautiful dumb ideas. "There are some people who can draw something that's fundamentally ugly, but draw it—hint at detailing—in such a way that it's seductive." Three-dimensional models could be equally misleading. "What we try to do is see beyond our ability to implement, beyond our ability to detail."

One afternoon, Ive and Bart André removed the bottom panel of a MacBook laptop, revealing black and silver components arranged, with unnecessary orderliness, on a matte black circuit board. Ive looked down happily. "This is such an extraordinarily beautiful thing," he said. André noted that, in a competitor's computer, the board would be green. He sounded embarrassed on behalf of that other machine. On the same table was a plastic model of an existing Apple headphone—an EarPod—the size of a golf driver.

The company's process, which is enabled by almost limitless funds, and by sometimes merciless pressure on suppliers and manufacturers, also provides a layer of commercial armor plating: an Apple object is "manufactured in a way that makes it harder to copy," Paola Antonelli said. "That's the genius. It's not only the formal effect." When, in 2007, Robert Brunner first saw a MacBook's "unibody" housing—made, unprecedentedly, out of a milled block of aluminum—it was a "mind-blowing epiphany," he said. Apple "had decided that this was the experience they wanted, so they went out and bought ten thousand C.N.C. milling machines." (Apple didn't confirm that figure, but Brunner was not being hyperbolic.) Soon after the iPhone débuted, Brunner said, Ammunition was approached by "a very large Korean company" to create a touchscreen competitor: "They wanted us to do it in six weeks." He laughed. "We were, like, 'You don't realize, this was *years.* This was years of a lot of very good people.' "

One day, I joined a few Apple designers in the studio kitchen, and asked them how they had registered the world's embrace of their products. They seemed reluctant even to acknowledge it; they made the studio sound happily isolated, like a spa or a Scandinavian prison. "It's not like the weight of the world's on our shoulders," Richard Howarth, the British designer, said. "Jony set it up so that it's a little—it's freer than you might imagine."

Evans Hankey, a design-team member, added, "Most of the pressure comes, I think, from us." She said that an existing product is often set alongside a model of a potential successor, to see if "the one that we've been enjoying for a couple of years or so—if it just feels really old and kind of stodgy, and the new one feels just amazing." (The designers are not on the same clock as their customers, so that moment may arrive when the stodgy item is first arriving in stores.) Once a new model feels "inevitable," Hankey said, "we know we have a lot to do, but at least the foundation is solid."

Hankey's words were a reminder of the difficulty in obeying Dieter Rams's commandment about long-lasting design. In 1973, a Sony ad announced, "This could be the tape deck you'll leave your great-grandson." That line, similar to the theme of Patek Philippe ads, may have been wishful, but it was not yet an absurd way to talk about consumer electronics. Today, Apple's designers, like their competitors, make machines that are almost disposable: the screens crack; the processors become outmoded. I asked if this caused discomfort, and there was a pause. Whang, the d.j., mentioned a friend who still uses a first-generation iPhone.

"It's super banged up, but it's absolutely fine," he said, as if the device were a war photographer's scuffed Leica. "So the stuff absolutely lasts."

Earlier, Ive had said that he wouldn't trade reach for permanence. The studio's perpetual advancements improved "the quality of life for millions and millions and millions of people." To decelerate—"to say, 'There you are, it's *done*' "—would make his professional life simpler. But that, Ive said, would be "really selfish of me."

IV. A TAP ON THE WRIST

I asked Jeff Williams, the senior vice-president, if the Apple Watch seemed more purely Ive's than previous company products. After a silence of twenty-five seconds, during which Apple made fifty thousand dollars in profit, he said, "Yes."

In 2007, the year of the iPhone launch, the Ives bought an eleven-bedroom seventeenth-century house, with a lake, in rural Somerset, in the West of England. Ive had been at Apple for fifteen years; his children were nearing school age. When Ive and his wife were photographed among the tanned and lacquered guests at San Francisco fund-raisers, they looked palely handsome and a little puzzled, as if misdirected from the set of a Jane Austen adaptation. At the time, Michael Ive hoped that the Somerset house presaged a permanent return. He told me that he had learned not to ask three questions: "When are you coming back to England?"; "What are you working on?"; "Planning any more kids?"

According to Clive Grinyer, Ive had by then considered returning to the U.K., entering a "magnificent early retirement" in which he worked on "luxury items with Marc." As Grinyer recalls his conversations with Ive, Apple's success, and Jobs's worsening health, revised such plans. Apple sold six million phones in the first year. By 2012, the company was selling more than a hundred million a year. In the same period—during which Apple launched the iPad and the MacBook Air—the company's valuation quadrupled. "The iPhone just seemed to change the entire world," Grinyer said. "I think he is burdened by it. He's got no choice, the poor guy. He really has to see it out, and I know it wasn't his plan. Which is not to say he's not enjoying it." By the spring of 2011, the Somerset house was back on the market. (Ive's former guesthouse—limestone flooring, double Neff oven—is available for short-term rentals.)

Ive told me that he never planned to move: he and his wife bought the house for family vacations, and sold it when it was underused. But he also connected the sale

to what he called inaccurate reporting, in the London *Times*, in early 2011, claiming that Apple's board had thwarted his hope of a relocation; he did not want to be shadowed by gossip. In 2012, Ive was knighted in Buckingham Palace; by then, he and his wife had become U.S. citizens, although they did not relinquish their British passports.

Jobs was given a diagnosis of pancreatic cancer in 2003. Isaacson reported that, in 2009, when Jobs was hospitalized for a liver transplant, and barely able to speak, he critiqued the design of an oxygen mask. Jobs came back to work, and later hosted the launch of the iPad. But in 2011 he took a leave of absence from which he never fully returned. Ive was a frequent visitor to the Jobs home, and was there, on an afternoon in October, when Jobs died.

At Jobs's memorial, which was held on the lawn at Infinite Loop, Ive said, "Steve used to say to me—and he used to say this a lot—'Hey, Jony, here's a dopey idea.' And sometimes they were: really dopey. Sometimes they were truly dreadful. But sometimes they took the air from the room, and they left us both completely silent. Bold, crazy, magnificent ideas. Or quiet, simple ones which, in their subtlety, their detail, they were utterly profound." Ive said to me, "I couldn't be more mindful of him. How could I not, given our personal relationship, and given that I'm still designing in the same place, at the same table, where I spent the last fifteen years with him sat next to me?"

The Apple Watch—the first Apple device with a design history older than its founder, or its designer—was conceived "close to Steve's death," Ive said. It's hard to build a time line of this or any other Apple creation: the company treats the past, as well as the future, as its intellectual property. But, in 2011, there may have been a greater appetite than usual for investigations of new products. One could imagine that executives were eager to *act*, in anticipation of grief, market upheaval, and skeptical press. (The *Onion:* "Apple Unveils Panicked Man with No Ideas.") Cook said, "We were looking at multiple categories of products, and thinking about which ones to do." The company began developing the iPad Mini. Before the end of the year, prototype ancestors of the iPhone 6 were lined up in the studio, with screen sizes at "every point-one of an inch, from four all the way through to well over six." (Earlier, the studio had designed a larger iPhone based on the architecture of the iPhone 4, but, as Ive recalled, it was "clunky" and "uncompelling.")

I had wondered if the watch project, and Ive's software role, could be seen as a way for Apple to thank and secure Ive: handcuffs in yellow gold and rose gold. "I never thought of that, to be honest," Cook said. "I think Jony really loves Apple—loves being here and loves the products." He added, "The driving force was that our products would be much better." If Jobs and Ive had a father-son dynamic, Ive and Cook seem like respectful cousins. Cook said that Ive was "extremely supportive" both before and after he publicly announced, last fall, that he was gay: "When you do something like that, there's a group of people that throws stones." He went on, "It's been great having people who remind you of all the good in it."

Ive collected watches, and he had often discussed watch design with colleagues and with Newson, who in the nineties had founded his own watch company, Ikepod. "The job of the designer is to try to imagine what the world is going to be like in five or ten years," Newson told me. "You're thinking, What are people going to need?" In 2011, largely thanks to advances in the miniaturization of technology, the answer seemed to be a wearable notification device paired to a phone—making it yet simpler to exchange messages of love, or tardiness. That summer, Google made an eight-pound prototype of a computer worn on the face. To Ive, then unaware of Google's plans, "the obvious and right place" for such a thing was the wrist. When he later saw Google Glass, Ive said, it was evident to him that the face "was the wrong place." Cook said, "We always thought that glasses were not a smart move, from a point of view that people would not really want to wear them. They were intrusive, instead of pushing technology to the background, as we've always believed." He went on, "We always thought it would flop, and, you know, so far it has." He looked at the Apple Watch on his wrist. "This isn't obnoxious. This isn't building a barrier between you and me." He continued, "If I get a notification here, it will tap my wrist"—with silent vibrations. "I can casually look and see what's going on." We were in a conference room at One Infinite Loop, a few doors from Jobs's old office, and I noticed that, at this moment in the history of personal technology, Cook still uses notifications in the form of a young woman appearing silently from nowhere to hold a sheet of paper in his line of sight.

In the fall of 2011, Ive said, a watch conversation became a formal watch project, albeit one that was "still tentative and very fragile." He made the moment sound both unremarkable ("We explore a lot of things, and we're resigned to the fact that most of them don't continue") and portentous ("It's not very often that we start something that's an entirely new platform"). When Ive, in discussing this work with me, referred to such topics as the evolution of sewn pockets, it was easy to detect his

pleasure in being answerable to history. Ive may or may not have longed for Somerset, but, after two decades in design's New World, he'd given himself a task with some Old World constraints. He invited historians and astronomers to give lectures in the studio.

At first, the designers put little on paper. After years of collaboration, "we just get it," Ive said. "We know exactly what somebody means." They first discussed the watch's over-all architecture, rather than its shape. Ive's position was that people were "O.K., or O.K. to a degree," with carrying a phone that is identical to hundreds of millions of others, but they would not accept this in something that's worn. The question, then, was "How do we create a huge range of products and still have a clear and singular opinion?"

If variety was a perceived necessity, it was also an opportunity. "We could make aluminum, and stainless steel, and gold, and different alloys of gold," Ive said. (Hinting at future plans, Ive added, "We've not stopped.") The product range could extend into mass-market luxury, allowing both Ive and Newson to escape the contrasting restrictions of their exalted careers. Newson became an acknowledged Apple contributor only last year, but he worked on the watch from the start; his name will appear on patents. Newson had designed airplane interiors, and the Safilo reading glasses that Ive often hooks over the collar of his T-shirts; but he had seldom made mass-market goods. He had sometimes been envious of what was possible at Apple. In 2007, in order to pursue the costly idea of milling one-off pieces of marble furniture, he had partnered with the Gagosian gallery, crossing the border into fine art. "I needed to find an outlet for my creativity," Newson explained. "I couldn't find a client who would do those kinds of things." To work with Ive, at the other end of the manufacturing scale, would give him a similar license. A designer at Apple "can think about doing things in a way that you otherwise would have dismissed as being impractical or frivolous, or just not economical," Newson said.

According to Clive Grinyer, "Jon's always wanted to do luxury." By this point, Grinyer said, Ive had already fulfilled one duty of industrial design: to design a perfect stapler, for everyone, in a world of lousy staplers. (Most designers driven by that philosophy "didn't really rule the world," Grinyer said. "They just ruled staplers.") A few years ago, Grinyer had considered working with Vertu, the British-based cell-phone manufacturer, whose bejewelled but technologically ordinary products sell for tens of thousands of dollars. Vertu's survival challenged the

assumption that inevitable obsolescence removes modern consumer electronics from consideration as luxury goods. Ive was "very interested" in Vertu, Grinyer recalled.

Bob Mansfield, then closely involved in the watch project, said that Ive's role was to be "himself and Steve" combined. Yet Ive still had to make a case to Apple, and Mansfield recalled "a lot of resistance." It wasn't clear how the company would display such things in stores; there were also concerns about creating a divide between wealthy and less wealthy customers. (As Mansfield said, "Apple wants to build products for everybody.") But Ive won the argument, and in 2013 the company announced the high-level appointments of Angela Ahrendts, the former C.E.O. of Burberry, and Paul Deneve, the former C.E.O. of the Yves Saint Laurent Group. Patrick Pruniaux, from TAG Heuer, a part of the L.V.M.H. luxury conglomerate, was hired last year. Apple has announced that the cheapest watch will cost three hundred and forty-nine dollars. In parts of the world already filled with smartphones, that price may give the Apple Watch the graduation-gift appeal that, according to Brunner, Beats consciously sought with its headphone pricing. But Ive's solid-gold models, innocently named Apple Watch Edition, are expected to cost many thousands of dollars. John Gruber, an influential Apple blogger, has written that the prices may be "shockingly high . . . from the perspective of the tech industry," but perhaps "disruptively *low* from the perspective of the traditional watch and jewelry world." Sebastian Vivas, the director of a watch museum maintained by Audemars Piguet, the Swiss manufacturer, recently described his industry as unperturbed by Apple's plans: "We're not afraid; we're just a little bit smiling." It would be a greater threat, he told me, if men widely accepted that they could wear gemstones without a time-keeping pretext.

Ive's decision to offer choice was a challenge to Apple's recurring theme of design inevitability. In one of our conversations, Ive was scathing about a rival's product, after asking me not to name it: "Their value proposition was 'Make it whatever you want. You can choose whatever color you want.' And I believe that's abdicating your responsibility as a designer." Cook told me, "Jony has better taste than anyone I ever met in my life," and Ive might not demur. Over lunch in an Apple cafeteria, Ive said that he wouldn't think of challenging the technical decisions of "the best silicon-chip designers in the world," who were sitting around us. But industrial designers, he said, are rarely offered the same deference—in part, because most people regularly make taste-based decisions, about shoes and lamps.

The studio adopted a modular system for the watch: a body in various materials, and a choice of interchangeable straps. Six weeks into the project, the studio built its first model.

"It's awkward when you're dealing with models," Ive said. "Often you're reacting, by definition, to newness, or difference." The new has to be given time to annoy, or disappoint. A few years ago, Ive and his colleagues assessed each prototype size of the future iPhone 6 by carrying them around for days. "The first one we really felt good about was a 5.7," he recalled. "And then, sleeping on it, and coming back to it, it was just 'Ah, that's way too big.' And then 5.6 still seems too big." (As Cook described that process, "Jony didn't pull out of his butt the 4.7 and the 5.5.")

For the watch, it was a year before Ive settled on straps that clicked into slots. Ive later tested watchbands by wearing them outside the studio with other watches. The shape of the body, meanwhile, barely changed: a rectangle with rounded corners. "When a huge part of the function is *lists*"—of names, or appointments—"a circle doesn't make any sense," Ive said. Its final form resembles one of Newson's watches, and the Cartier Santos, from 1904.

Ive places the new watch in a history of milestone Apple products that were made possible by novel input devices: Mac and mouse; iPod and click wheel; iPhone and multitouch. A ridged knob on the watch's right side—the Digital Crown—took its form, and its name, from traditional watchmaking. The watch was always expected to include a new technology that had long been in development at Apple: a touchscreen that sensed how hard a finger was pressing it. (A press and a tap could then have different meanings, like a click and a double-click.) But the Digital Crown, a device for zooming that compensated for the difficulty of pinching or spreading fingers on a tiny screen, was ordered up by the studio. In a reverse of "skinning," Ive asked Apple's engineers to make it. In time, the crown's role grew to include scrolling through lists. Ive was delighted with its versatility, but the sight of one of his colleagues scrolling with a rigid finger—a Doughboy poke—made me wonder if a more natural watch-winding gesture will cause large thumbs to flop, accidentally, onto the touchscreen.

One afternoon in the studio, Ive sketched the Apple Watch as seen from the side, with the crown asymmetrical on two axes: nearer the top of the watch than the bottom, and nearer the face than the back. (There is also a more flush secondary button.) As an afterthought, he quickly drew the front of an iPod: a rectangle within

a rectangle, and a circle within a circle. He pointed at the watch drawing. "It's not for us to say if things are iconic," he said, and then described it as a "very, very iconic view." Ive explained that, had he centered the Digital Crown, the watch would be a quite different product. "It's just *literal*. And you could say, 'Why is that an issue?' Well, if it's literally referencing what's happened in the past, the information about what it does is then wrong." The crown rotates, which is reassuring, but it doesn't wind the watch or adjust hands. The goal, Ive said, was to create "the strangely familiar."

Apple was feeling its way toward a product for fitness monitoring, card-free payments, and flirtatious doodled messaging and wrist-tapping during long commutes. (The company may have used the word "intimate" one or two times too many at the product's launch.) In 2012, Ive gathered small groups from across the company for a series of discussions at the St. Regis Hotel in San Francisco. Jeff Williams said, "Jony had this great way of facilitating ideas, and being incredibly patient—long moments of silence." He remembered a conversation about the amount of information one can absorb in a glance. In another, it was observed that, although some modern cars can automatically alert a service center about a technical problem, a child's looming illness creates no such alert.

When Ive took control of Human Interface, in 2012, his immediate task was reforming the iOS. Jobs had liked digital facsimiles of analog designs; reportedly, the stitched leather in Apple's desktop calendar quoted the interior of his Gulfstream. Ive's view was that such effects were appropriate for the iPhone's launch, when "we were very nervous—we were concerned how people would make a transition from touching physical buttons that moved, that made a noise . . . to glass that didn't move." But, he went on, "It's terribly important that you constantly question the assumptions you've made." (The bulbous iMac, a design with a similar desire to put people at ease, was replaced after three and a half years, and looked dated before then.) Ive was also itching to smooth the corners of iPhone app icons. "They drove me crazy," he said. "All I could see were these unresolved tangency breaks."

Had Ive previously asked to intervene? "There's a step prior to that, which is to say, 'I don't think this is right, but I'm really busy doing my stuff,' " he replied. He'd had that conversation with Jobs. "He knew, absolutely, my views," Ive recalled. "I'm not going to second-guess what he would have done if—had he been well." I asked Cook if, after he became C.E.O., Ive had pressed for a software role. "We clearly spent a lot of time talking about it," Cook said. "And I think it became clear to him that he

could add a lot." Ive's career sometimes suggests the movements of a man who, engrossed in a furrowed, deferential conversation, somehow backs onto a throne.

His discussions with Cook were prompted by thoughts of iOS7, but it would have been as clear to him as it was to Alan Dye, a creative director at Apple, that the company's industrial designers were at risk of losing some of their control over its products. As an iPad "becomes a piece of glass," Dye said recently, the experience of the software becomes as important as the hardware, "or more important." The watch would include some grand industrial-design gestures—gold hardened in a novel process of compression; a buckle secured with forty-odd magnets—but across much of Apple's product range such opportunities were becoming rarer.

Dye, a graphic designer who had worked at Kate Spade in New York, and then in Apple's marketing and communications department, became the head of a new Human Interface team that, before it grew too large, was embedded in the studio. Apple, in fact, already had a Human Interface team, working on the other side of the campus, without the same access to Ive and sober Dutch ringtones. In a development that reflects some part of Apple's evolution since Jobs's death, there were moments of tension between the original team and the new sophisticates, and then there was one merged team, under Ive.

I spoke to Dye at a table by the lawn at Infinite Loop. He had brought a sketchbook, and he opened it to a page where he'd drawn simple outlines: shuttlecock, light bulb, thundercloud, tree. He had been imagining possible elements in a vocabulary of doodled messages for the Apple Watch. "This is silly stuff," Dye said, describing the exercise of seeding a future language.

Last spring, Jimmy Iovine, the C.E.O. of Beats, asked to meet with Robert Brunner. As Brunner recalled, "He walks in, he says, 'I sold the company!' " Iovine couldn't then name the buyer; Brunner's best guess was Samsung. When he learned that it was Apple, which had paid more than three billion dollars, he e-mailed Ive: "Well, we need to have dinner." Brunner recalled that Ive, in his reply, referred to the "odd symmetry" of the moment.

When I spoke to Cook, he lauded Beats' music-streaming service and its personnel before praising its hardware. "Would Jony have designed some of the products?" he said. "Obviously, you can look at them and say no." He went on, "But you're not buying it for what it is—you're buying it for what it can be." Brunner is proud of the

Beats brand, but it took him time to adjust to a design rhythm set as if for a sneaker company: “Originally, I hated it—‘Let’s do a version in the L.A. Lakers’ colors!’ ” He laughed. “ ‘Great. Purple and yellow. *Fantastic*.’ ” When I asked Cook about such novelties, he laughed: “I want Beats to be true to who they are. I don’t want to wave the wand over them in a day and say, ‘You are now Apple.’ Down the road, we’ll see what happens.”

Brunner and Ive had dinner in San Francisco a few days before Apple’s September announcement; they barely talked about the Beats deal. “I was telling my wife I’ll be home by ten o’clock,” Brunner said. “We were still drinking past twelve-thirty. I think he was blowing off a little steam.” (Stephen Fry said of Ive, “He loves a great hotel and a great wine.”) Ive was worn out, and preoccupied by the launch, and, Brunner said, by the thought of “doing something like this without Steve.” But they gossiped a little about designers, and Brunner was reminded of his former employee’s extreme thoroughness when Ive showed him drawings of “a perfectly radiused marble corner” for a future bathroom in Pacific Heights.

The Apple event ended oddly, with charmless stage banter between Cook and Bono, who spoke coyly of a vast, opaque commercial transaction, involving free music, between their two organizations. Like Mickey Mouse, seen that day on one of the watch faces, U2 has perhaps become more a symbol of entertainment than a source of it. I imagined Ive sighing, “Must I do everything myself?”

As people stood to leave, Harper Alexander handed Ive an Apple Watch: it was the larger of two sizes, in rose gold, with a band of white rubbery plastic. Ive tied it to his wrist loosely, and it suited him. A few minutes later, he walked outside to a large white shed that had been built as a temporary showroom. There seemed to be an exaggerated heaviness—a miming of responsibility—in Ive’s rolling gait. Referring to three years of work on the watch, he said, “It took a long time and it was very hard.” But the ovations had pleased him. The room was full of reporters and fashion-industry guests—including Lily Cole, the model, wearing a gold Rolex Oyster that her friend Olivier Zahm, the studiedly louche editor of the magazine *Purple*, Instagrammed before the event was over. (“Sorry Apple,” someone commented.)

Inside the shed, I tried on a watch, and its stainless-steel chain bracelet, guided by magnets, fell into place with the click of someone stacking nickels. That click, and one or two other immaculate couplings, had been the only sounds, apart from music, heard on a trailer-length “reveal” video that preceded the ten-minute film. The watch

was months away from market—it will become available in April—and its display showed only a loop of dummy text and images.

I was walking around with Richard Howarth and Julian Hönig; they stared, slightly dazed, at people handling objects that only they had handled for years. When a product demonstrator gave me his pitch, they interrupted with design footnotes. "The materials in this thing are *insane*," Howarth said. People, he noted, were saying that the watch's face was made of "sapphire glass": "It's not glass, it's sapphire crystal —completely different structure. And then the stainless steel is super-hardened. And the zirconia ceramic on the back is co-finished with sapphire as well." He added, "This would cost so much money if a different company was making it—Rolex or something. It would be a hundred grand or something."

"We sell it for just fifty thousand," Hönig said, joking.

The next day, I visited Ive in his studio. The table previously covered with a flat cloth was now uncovered: it was a glass-topped Apple Watch display cabinet, accessible to staff from below, via a descending, motorized flap, like the ramp at the rear of a cargo plane. Ive has begun to work with Ahrendts, Apple's senior vice-president of retail, on a redesign—as yet unannounced—of the Apple Stores. These new spaces will surely become a more natural setting for vitrines filled with gold (and perhaps less welcoming, at least in some corners, to tourists and truants). Apple had not, overnight, become an élite-oriented company—and it would sell seventy-five million iPhones in the final quarter of 2014, many of them in China—but I wondered how rational, and pure of purpose, one can make the design of a V.I.P. area. Ive later told me that he had overheard someone saying, "I'm not going to buy a watch if I can't stand on carpet."

That afternoon, he was eating salmon sashimi, and complaining about seasonal allergies. "I'm going to limp toward the weekend, and take Monday off, I think," he said. He described the previous day as "momentous." His iPhone 6 softly chimed a text alert every minute or two. To those of Ive's generation, the new phones were perhaps large and slippery enough to trigger nostalgia for the small, tough phones of a decade ago. I asked Ive about the slightly protruding camera lens that prevents the iPhone 6 from resting comfortably on its back. Ive referred to that decision—without which the phone would be slightly thicker—as "a really very pragmatic optimization." One had to guess at the drama behind the phrase. "And, yeah . . ." he said.

As we spoke, I removed links from an Apple Watch bracelet, and then put them back, and it seemed possible that the watch's combination of distractions might, for some, be overwhelming. "I know," Ive said. Like an iPhone, an Apple Watch is only "simple and pure"—to quote Ive's film—until it's a threat to sleep, solitude, or the happiness of someone near you in a cinema. Michael Ive, remembering his son's hamster obstacle course, wondered if young people were now "too screen-focussed." On a sidewalk outside the studio, I later saw an employee looking at his Apple Watch while balancing an iPhone 6 on his forearm.

The Apple Watch is designed to remain dark until a wearer raises his or her arm. In the prototypes worn around the Cupertino campus at the end of last year, this feature was still glitchy. For Marc Newson, it took three attempts—an escalation of acting styles, from naturalism to melodrama—before his screen came to life. Under normal circumstances, the screen will then show one of nine watch faces, each customizable. One will show the time alongside a brightly lit flower, butterfly, or jellyfish; these will be in motion, against a black background. This imagery had dominated the launch, and Ive now explained his enthusiasm for it. He picked up his iPhone 6 and pressed the home button. "The whole of the display comes on," he said. "That, to me, feels very, very old." (The iPhone 6 reached stores two weeks later.) He went on to explain that an Apple Watch uses a new display technology whose blacks are blacker than those in an iPhone's L.E.D. display. This makes it easier to mask the point where, beneath a glass surface, a display ends and its frame begins. An Apple Watch jellyfish swims in deep space, and becomes, Ive said, as much an attribute of the watch as an image. On a current iPhone screen, a jellyfish would be pinned against dark gray, and framed in black, and, Ive said, have "much less magic."

Alan Dye later described to me the "pivotal moment" when he and Ive decided "to avoid the edge of the screen as much as possible." This was part of an overarching ambition to blur boundaries between software and hardware. (It's no coincidence, Dye noted, that the "rounded squareness" of the watch's custom typeface mirrors the watch's body.) The studio stopped short of banishing screen edges altogether, Dye said, "when we discovered we loved looking at photos on the watch, and you can't not show the edge of a photo." He laughed. "Don't get me wrong, we tried! I could list a number of terrible ideas." They attempted to blur edges, and squeeze images into circles. There was "a lot of vignetting"—the darkening of a photograph's corners. "In the end, it was maybe putting ourselves first," he said.

After I left Ive that day, he drove to a wine bar in San Francisco, for a celebratory Apple Watch buffet dinner. The evening, he recalled, was "very gentle, reflective, probably because we were so tired." The Apple Watch software will award virtual medals, embossed and enamelled, marking fitness achievements; Ive described their appearance as "slightly nostalgic," with echoes of a mid-century Olympic Games. "When you're judicious with what's literal, it can be powerful," Ive said. At the party, what had been literal became manifest: the guests all left with a metal iteration of a virtual medal, in a black cloth pouch.

In San Francisco, in an L-shaped living room with a large fireplace surrounded by dark wood, Heather Ive turned off some lights to improve the night view. "You can see the wash of light from the lighthouse at Alcatraz," she said. Her husband added, "The new house is way over there. You're almost on top of the water." The work in Pacific Heights, which has included driving piles forty feet into the ground, is scheduled to be finished this year.

His architects there are Foster + Partners, which is led by Norman Foster. Since 2009, the same firm—"Norman's boys," as Ive has sometimes put it—has worked on Apple's new campus. Inevitably, Ive is a co-designer of his house; according to Cook, he is playing the same role with the new headquarters. Apple loves its architects, Cook said, but "you can't outsource your brain." The building should express "the way we look at the world."

In December, a day after a severe coastal storm had sent seabirds darting inland, across Silicon Valley, I met Ive at the site of the future campus, a five-minute drive from Infinite Loop. It was still raining. There was no view of the Santa Cruz Mountains, and no sign of the drone that sometimes buzzes overhead, recording video that is scrutinized online. The site has been cleared of all but one preëxisting office building. This is where thirty Foster architects work; they are sometimes joined by London-based colleagues, and by Ive and his team. In the lobby, there was a wall-size rendering of the campus, into whose central landscaped circle—amphitheatre, fountain, apricot trees—one could drop the Great Pyramid. When the design studio is relocated, it will occupy a top-floor space of thirty thousand square feet, with Industrial Design and Human Interface together, sharing a view of what Apple refers to as the "savanna" between the main building and the fitness center.

"I was very keen to have Norman do the project," Ive said. We walked through a series of rooms filled with prototypes and renderings. Ive has few doubts about his

usefulness on architectural projects: in the design disciplines, he said, he finds it "a curious thing that we tend to compartmentalize, based on physical scale." (He later told me that he'd taught Foster's architects something about the geometry of corners. A recurring campus detail will be floors that turn up a little where they intersect with walls.)

We stood by a scale model. Ive said that, in an earlier iteration, the campus was "trilobal." I imagined a three-petalled flower, or the symbol for radioactivity. The single loop seemed to reflect the imperial part of the studio's spirit of imperial solicitousness. Under Cook, Apple has experimented with a softer, less neurotic image, and has, among other things, strived to improve its performance as a proxy employer of overseas factory workers. It's determined to make the case, as Cook put it, that the company's leaders shouldn't be thought of as "greedy bastards looking for more money." A private walled garden, costing an estimated five billion dollars, may not catch this mood.

Later that day, I asked Ive about an Apple design that shares the new campus's formal simplicity: the circular "hockey puck" mouse that was included with the first iMacs. Many found it hard to control, and it is widely considered a design failure. Ive didn't accept that description. He referred to different schools of thought about arms, wrists, and mice. "Everything we make I could describe as being partially wrong, because it's not perfect," he said, and he described the wave of public complaint that accompanies every release. He went on, "We get to do it again. That's one of the things Steve and I used to talk about: 'Isn't this fantastic? Everything we aren't happy about, with this, we can try and fix.' "

The loop can't be fixed, as Ive acknowledged, with a laugh. But, as far as possible, Ive has turned it into an industrial-design product. From the point of view of his discipline, an office building is a handmade prototype that fails to go into production. And Ive sees no intrinsic virtue in making things by hand: "You can have careless, unqualified craftspeople." So, if a vast unvarying loop could be thought of as a Jobs hangover, it's also an opportunity for mass production. When Ive enthuses about the building, it's on these grounds. "You have a kit of elements and you just make lots of them," he said, happily. Ive's studio largely designed the building's "void slabs": forty-four hundred precast-concrete units that will have a floor on one side, a ceiling on the other, and a cooling system between them. They are being manufactured in an Apple-built factory in Woodland, California. "We're assembling rather than building," Ive said.

Ive only then made the case that a ring was "a remarkably pragmatic way of connecting the right groups." A taller building, he said, would make such connections more complex. The counterargument is fairly strong: the two full-circumference corridors are each about a mile long.

Before we went outside, Ive showed me the work he'd done on staircases, and on the signage for employee security-card readers; we examined brightly colored polycarbonate panels that will help people establish where, beneath the loop, they have parked. Pinned to a wall were alternate versions of a visitor reception center, separate from the loop. Seen from above, both were modified rectangles. One, marked "Pill," had half-circles at either end. The other ended in a more familiar Apple way, and was labelled "iPhone." "We should be done, but we're still redoing and redoing," Ive said. He had recently introduced the iPhone option, partly for fear that a visitor approaching the Pill by its rounded ends might mistake it for an echo of the main building. He had also insisted—"a big fight"—on simplifying the control panels of the Mitsubishi elevators.

We toured the site in a Jeep, in the rain. "Gosh, that's come on so much," Ive said. The building's ring was a trench, lined with concrete, deep enough for two levels of underground parking. When we got out, Ive declined to wear the construction hat provided; we walked across mud and peered over the edge. His noises of appreciation —"Oh!"—sounded almost regretful.

He was a few days from starting a three-week vacation, the longest of his career. The past year had been "the most difficult" he'd experienced since joining Apple, he said later that day, explaining that the weariness I'd sometimes seen wasn't typical. Since our previous meeting, he'd had pneumonia. "I just burnt myself into not being very well," he said. He had discouraged the thought that Newson's appointment portended his own eventual departure, although when I spoke to Powell Jobs she wondered if "there might be a way where there's a slightly different structure that's a little more sustainable and sustaining." Comparing the careers of her husband and Ive, she noted that "very few people ever get to do such things," but added, "I do think there's a toll."

We drove around the building's perimeter. "This is something that Steve cared about passionately," Ive said. "There is a bittersweetness here, because this is obviously about the future, but every time I come here it makes me think of the past as well—and just the sadness. I just wish he could have seen it." We went to have lunch with

Newson, in a twenty-thousand-square-foot room built as a miniature test run of the future campus cafeteria. ♦

Ian Parker contributed his first piece to The New Yorker in 1994 and became a staff writer in 2000. *Read more »*

CONDÉ NAST

© 2018 Condé Nast. All rights reserved. Use of and/or registration on any portion of this site constitutes acceptance of our User Agreement (updated 5/25/18) and Privacy Policy and Cookie Statement (updated 5/25/18). Your California Privacy Rights. The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of Condé Nast. *The New Yorker* may earn a portion of sales from products and services that are purchased through links on our site as part of our affiliate partnerships with retailers. Ad Choices