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and
Why We Buy

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Updated and Revised for the Internet, the Global Consumer and Beyond

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DEDICATION

Who knew when the first keystrokes of this document were made in the spring of 1997 that ten years and twenty-seven foreign translations later this book would still be alive? I am grateful that in the summer of 1999, when this book came out, my father, Francis Underhill, got to see it. I don't think he really knew what I did even after reading it. He had a lot of interests, but shopping wasn't ever among them. He died that fall. I was there. I made him a martini and helped him get comfortable in bed. He went, sleeping next to my mother, his wife of more than fifty years. I still talk to him.

AUTHOR'S NOTE

For some of you, the book you hold in your hands may be an old friend—given as a gift, bought in an airport, secured through Amazon or assigned at a school or training progam. Thanks for picking it up again. Most volumes stocked in the business section of a bookstore have a short shelf life. They zoom and crash and are forgotten within a year. This book has lasted ten years and is available in twenty-seven foreign editions. I had no idea when pen first went to paper back in 1997 that my story would appeal to so many readers.

From Russia to Japan, from Spain to Thailand, I've had visits and e-mails from readers just wanting to say hi, many looking for a job and not a few telling me their own stories. University professors from China, a Marxist minister in the Bengali provincial government, a jewelry designer from Spain—the list goes on. My favorite pieces of correspondence came from a man who ran a septic tank cleaning business in Missouri. The letter was handwritten on lined paper. I don't know how many letters that man writes a year, but I know I was privileged to get one of them. He'd read the book and wanted my advice on what color to paint his truck.

In 2007, I reread *Why We Buy* and realized that parts of the story had progressed and that some of the examples I'd used were dated. The book needed freshening and that's what it's gotten. If you liked it the first time, you'll like it even better the second. If you're picking it up for the first time, whether you love or hate shopping, this is a good, entertaining read, and you'll never look at the world of shopping and consumption the same way again.

Paco Underhill
January 2009

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V

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1

Instead of Samoa, Stores: The Science of Shopping

ONE

A Science Is Born

Okay, stroll, stroll, stroll . . . *stop*.

Shhh. Stay behind that potted palm. Get out your clipboard and pen.

Our subject is the fortyish woman in the tan trench coat and blue skirt. She's in the bath section. She's touching towels. Mark this down—she's petting one, two, three, four of them so far. She just checked the price tag on one. Mark that down, too. Careful—don't get too close—you don't want her to see you. She picked up two towels from the tabletop display and is leaving the section with them. Mark the time. Now, tail her into the aisle and on to her next stop.

Thus begins another day in the vineyards of science, specifically the science of shopping. But let's start by addressing a fundamental question: Since when does such a scholarly discipline even exist?

Well, if, say, anthropology had devoted a branch of itself to the study of shoppers in situ (a fancy Latin way of saying shoppers out shopping), interacting with retail environments (stores, but also banks and restaurants), the actual, physical premises, including but not limited

to every rack, shelf, counter and table display of merchandise, every sign, banner, brochure, directional aid and computerized interactive informational fixture, the entrances and exits, the windows and walls, the elevators and escalators and stairs and ramps, the cashier lines and teller lines and counter lines and restroom lines, and every inch of every aisle—in short, every nook and cranny from the farthest reach of the parking lot to the deepest penetration of the store itself, *if* anthropology had already been studying all that . . . and not simply studying the store, of course, but what, exactly and precisely—scientifically—human beings do in it, where they go and don't go, and by what path they go there; what they see and fail to see, or read and decline to read; and how they deal with the objects they come upon, how they *shop,* you might say—the precise anatomical mechanics and behavioral psychology of how they pull a sweater from a rack to examine it, or read a box of heartburn pills or a fast-food restaurant menu, or grab a shopping basket, or react to the sight of a line at the ATMs . . . again, as I say, *if* anthropology had been paying attention, and not just paying attention but then collecting, collating, digesting, tabulating and cross-referencing every little bit of data, from the extremely broad (How many people enter this store on a typical Saturday morning, broken down by age, sex and size of shopper group?) to the extremely narrow (Do more male supermarket shoppers under thirty-five who read the nutritional information on the side panel of a cereal box actually buy the cereal compared to those who just look at the picture on the front?), well, then, we wouldn't have had to invent the science of shopping. In 1997, when this volume was originally written, the academic world knew more about the marketplace in Papua New Guinea than what happened at your local supermarket or shopping mall. Twentieth-century anthropology wasn't about what happened in your backyard.

In 1997, I'd been fighting for what I knew was right for more than ten years—and since then, a whole lot has changed. Companies across the world are now employing anthropologists to staff what have been popularly titled shopper and consumer insight groups. Ethnologic studies (that is to say, a science that breaks down humans into races, cultures and their various obvious and not-so-obvious characteristics) are part

of mainstream market research. But when I first hung out my shingle, my academic colleagues thought I was selling out, and the marketers and merchants I sought to serve looked at me as an alien from a distant planet.

Down the hall from my office then and now is an equipment room with more than one hundred cameras. Eight-millimeter video cameras, direct to hard drive, digital, even a few ancient Super 8 time-lapse film cameras. To keep track of them, every camera is assigned a name—the video cameras are named after rock stars, the digital stills are signs of the zodiac. We find giving a camera a name rather than a number helps it last longer, and when Jimi Hendrix feels poorly, he gets to the shop faster than if he were camera number 26. In that same equipment room are piled cases of blank eight-millimeter videotapes, two hours per tape, five hundred tapes to a case. Across the world, we have now shot more than fifty thousand hours of tape per year. We also have dozens of handheld computers, or PDAs, on which we painstakingly jot down the answers from the thousands of shopper interviews we conduct; there are laptops in there, too, plus all manner of tripods, mounts, lenses and other camera accessories, including lots of duct tape. Oh, and many well-worn hard-shell cases for everything, because it all travels. A lot. The studio next to the equipment room has two complete digital editing suites and eleven stations at which to watch all those tapes—because everything we shoot, we look at. We have more than enough gear in that room to make broadcast-quality documentaries and, while we're at it, to equip a good-sized university's school of social anthropology or experimental psychology, assuming the university has a deserved reputation for generating tons of original research gathered from all over the globe.

Even with all that high-tech equipment, though, our most important research tool for the past thirty years remains the piece of paper we call the track sheet, in the hands of the individuals we call trackers. Trackers are the field researchers of the science of shopping, the scholars of shopping, or, more precisely, of *shoppers*. Essentially, trackers stealthily make their way through stores following shoppers and noting everything they do. Usually a tracker begins by loitering inconspicuously near

a store's entrance, waiting for a shopper to enter, at which point the "track" starts. The tracker will stick with the unsuspecting individual (or individuals) as long as he or she is in the store (excluding trips to the dressing room or the restroom) and will record on the track sheet virtually everything the shopper does.

Befitting a science that has grown up in the real world, meaning far from the ivory towers of academia, our trackers are not stamped from the usual researcher mold. In the beginning we hired graduate environmental psychology students, but we found they were often unsuited to the work—more often than not, they came to the job burdened with newly learned textbook theories they wished to prove or disprove. As a result, they didn't possess the patience necessary to watch many shoppers at great length to see what they actually do. Creative people, however—playwrights, artists, actors, novelists, a puppeteer—have proven to be perfect for this work. They have no theories to uphold or demolish, just open minds and boundless curiosity about what people do and how and why they do it. They are dispassionate yet avid observers with no agenda except for wanting to accurately document how human behavior plays out in the retail arena. They manage to see the forest, the trees and everything in between.

When we find someone with the temperament and the intelligence for this work, we first put them through a training session in our office. There's a lot to learn—how do I watch and simultaneously take notes, for instance, or how can I tell whether someone is reading a sign or just staring at the mirror next to it? We have to teach the most important tracker skill of all: How do I stand close enough to study someone without being noticed? Because it's crucial to our work that shoppers don't realize they're being observed. There's no other way to be sure that we're seeing natural behavior. Fact is, we're all still surprised by how close you can stand to someone in a store and still remain invisible. We find that positioning yourself behind the shopper is a bad idea—we all pick up on the sensation that we're being watched. But if you stand to the side of a shopper, his or her peripheral vision reads you as just another customer—harmless, in other words, and barely worth noticing. From that position you can get close enough to see exactly what

a shopper is doing. You can be sure that he's touched, say, nine golf gloves, not eight or ten. Then we throw the tracker-hopefuls out into the real world, into a store setting, to see them in action. Most of them wash out at this point—you can teach technique, but not the smarts or the slight case of fascination required to do this work well. It's weirdly addictive, and many of our trackers have been with us for a decade or more.

John has been doing fieldwork for my company, Envirosell, for more than ten years, in between working as a kindergarten teacher. Trained to monitor five-year-olds, does he have patience? Oh, yeah. He also just completed his two-hundredth fieldwork assignment. He's of medium height, with brown hair, a spare build, crinkles in the corners of his eyes and big broad feet. He has no trouble standing all day. In our tracker pool, we also have rookies who are still getting twenty trips under their belts, intermediate-level trackers, master trackers, team leaders . . . and Noah, who, after thirteen years of tracking and team leading, now directs the forty-plus members of our tracking staff based out of our home office in New York City. We found Noah in Nashville. He was a last-minute replacement, a struggling music student who three hours into the job had found his calling. The first time he walked into my office he was dripping with nervous sweat (he'd never been to New York before). Thirteen years later, I still can't break him of the habit of calling me Mr. Paco.

In addition to measuring and counting every significant motion of a single shopping trip, our trackers also have to contribute incisive field notes describing the nuances of customer behavior and make good inferences based on what they've observed. These notes add up to yet another, this time anecdotal, layer of information about a particular environment and how people use it. Our trackers crisscross this continent, as well as the globe. As of 2008, we have offices in Mexico City, São Paulo, Milan, Bangalore, Moscow and Tokyo, and each office has its own tracker pool. All across the world, Envirosell trackers spend more time in stores in a month than most people do in several years. They visit every kind of retail business imaginable, from banks to fast-food restaurants to high-end fashion boutiques to hangar-sized discounters.

Since 1997, we've worked hard to expand our repertoire of field sites, adding concert halls, stadiums, train stations and airports as well as libraries, museums, hotels and websites (more about those later). But our sweet spot remains what we've always done. Of the world's fifty largest merchants, we've worked with approximately half, and in the U.S. alone, our clients include more than a third of *Fortune* magazine's top one hundred corporations.

As for the forms our trackers use? They're also marvels of data gathering. They have evolved constantly over the three decades we've been doing this research and are, without a doubt, the key to the entire enterprise, a great achievement, if I may say so, in the art of information storage and retrieval, nondigital division. We have tried scanning systems, exotic software packages . . . and we keep going back to the same old system. It works, it's flexible, and thanks to Wite-Out and a copy machine, it can be changed on a dime and on the fly. Our ability to react to what and whom we find walking through the door of wherever location we go is critical to our success. I'd guess that at least one third of the time we go on location, we end up finding something very different than what our client told us we'd find. The store has six aisles and not seven, the shelf layout has been mysteriously reversed or that interactive machine we were hired to study arrived at the store nearly a month ago and hasn't worked since.

Our earliest track sheets were able to record maybe ten different variables of shopper behavior. Today we're up to around forty. The form is reinvented for every research project we undertake, but typically it starts with a detailed map depicting the premises we're about to study, whether it's a store, a bank branch, a parking lot (for a drive-thru project) or just a single section—even just one aisle—of a store. The map shows every doorway and aisle, every display, every shelf and rack and table and counter. Also on the form is space for information about the shopper (sex, race, estimate of age, description of attire) and what he or she does in the store. Using the system of shorthand notation we've developed over the years, a combination of symbols, letters and hash marks, a tracker can record, for instance, that a bald, bearded man in a red sweater and blue jeans entered a department store on a

Saturday at 11:07 A.M., walked directly to a first-floor display of wallets, picked up or otherwise touched a total of twelve of them, checked the price tag on four, then chose one, and moved at 11:16 to a nearby tie rack, stroked seven ties, read the contents tags on all seven, read the price on two, then bought none and went directly to the cashier to pay. Oh, wait, he paused for a moment at a mannequin and examined the price tag on the jacket it wore. We'd mark that down, too, just as we'd note that he (the man, not the mannequin) entered the cashier line at 11:23 and exited the store at 11:30. Depending on the size of the store and the length of the typical shopper's stay, a tracker can study up to fifty shoppers a day. Usually we'll have several trackers at a site, and a single project may involve the simultaneous study of three or four locations. For huge stores like a home improvement center or a mass merchandiser, we may put ten or twelve trackers on the floor.

By the end of a job, an incredible amount of information has been crammed onto those sheets. They come back to the office, where an experienced clerk spends another day or so typing all the information, every single notation on every track sheet, into a computerized database. Over the years, we've spent tens of thousands of dollars and countless frustrating hours with computer programmers, trying to come up with a database that could handle the kind of work we do. The big problem is that while we crunch the same numbers in the same ways from job to job, each project usually requires us to do something a little differently—to collect different kinds of data or to devise new comparisons of facts we just uncovered. We've hired fancy consultants who spend six months at a crack with us, trying to build us a computer system. They ask us to list everything we want our program to do, but every week we add six new things to the list that negate all their work from the previous month. And of course, our turnaround time has to be swift, so there's no time to change the system completely for each job—we may need to do one new comparison for a project today and then not have to perform that function again for seven months.

In the early '90s, Microsoft Excel came along. Where had it been all my life? It was designed as a spreadsheet program, intended for accountants to do the relatively simple calculations they require. But

Excel's beauty was its open architecture—you could get in there under the hood and tinker, soup it up, make it purr. It also had a fairly simple way of writing macros, or lines of code, that allowed you to make the alterations easily. Today, while we still use Excel, we've moved on to other programs like Access and SPSS—but for years, Excel made our work possible. It's as though Microsoft built a very nice bicycle, which we then turned into a data-busting all-terrain vehicle. When Microsoft became a client and we showed them what we'd done with Excel, they were amazed.

When the videotapes come back from the sites, it's someone else's job to screen every bit of footage. Depending on the size of the store, we may have ten cameras running eight hours a day trained on specific areas—a doorway, for example, or a particular shelf of products. The video produces even more hard data. If, for example, a client wants us to determine in part how a particular cash register design affects worker fatigue, we may use the video and a stopwatch to time how long it takes for a clerk to ring up a sale at ten A.M. as compared to four P.M.

The list of particulars we're capable of studying—what we call the "deliverables"—grows with every new project we take on. At last count, we've measured close to a thousand different aspects of shopper-store interaction. As a result of all that, we know quite a few facts about how human beings behave in stores. We can tell you how many males who take jeans into the fitting room will buy them compared to how many females will (65 percent to 25 percent). We can tell you how many people in an IBM employee cafeteria read the nutritional information on a bag of corn chips before buying (18 percent) compared to those lunching at Subway (2 percent). Or how many browsers actually buy computers on a Saturday before noon (4 percent) as opposed to after five P.M. (21 percent). Or how many shoppers in a mall housewares store use shopping baskets (8 percent), and how many of those who take baskets actually buy something (75 percent) compared to those who buy without using baskets (34 percent). And then, of course, we draw on all we've learned in the past to suggest ways of increasing the number of shoppers who take baskets, for the science of shopping is, if it is anything, a highly practical discipline concerned with using

research, comparison and analysis to make stores and products more amenable to shoppers.

Because this science is being invented as we go along, it's a living, breathing field of study—meaning we never quite know what we'll find until we find it, and even then, we sometimes have to stop to figure out what it is we're seeing. Yes, for a lot of work now, after more than thirty years we have a good sense of what we are going to find, but what makes the science of shopping interesting is that things change and we still get surprised. I like to think of retail as the dipstick of our evolution. As we change as a species, those changes show up both in how we shop and what we shop for. That said, there are constants that relate to what we are biologically, and much of this book is about those constants.

For example, we discovered a phenomenon that journalists love to report—what's become known as the "butt-brush" effect—completely as the result of a happy accident. As part of a department store study, we trained a video camera on one of the main ground-floor entrances, and the lens just happened also to take in a rack of neckties positioned near the entrance, on a main aisle. While reviewing the tape to study how shoppers negotiated the doorway during busy times, we began to notice something weird about the tie rack. Shoppers would approach it, stop, and shop until they were bumped once or twice by people heading into or out of the store. After a few such jostles, most of the shoppers would move out of the way, abandoning their search for neckwear. We watched this over and over until it seemed clear that shoppers—women especially, though it was also true of men, to a lesser extent—don't like being brushed or touched from behind. They'll even move away from merchandise they're interested in to avoid it. When we checked with our client, we learned that sales from that tie rack were lower than they expected from a fixture located on a main thoroughfare. The butt-brush factor, we surmised, was why that rack was an underperformer.

And in fact, when we delivered our findings to the store's president, he jumped up from his chair, grabbed the phone, and ordered someone

to move that tie rack to a spot just off the main aisle. A few weeks later, we heard that sales from the rack had gone up quickly and substantially. Since that day we've found countless similar situations in which shoppers have been spooked by too-close quarters. In every case, a quick adjustment was all that was needed. So the idea of a body bubble gets applied to shopping—and we can push the idea even farther. It isn't that we hate crowds. A teeming cluster of people can be exhilarating. At Yankee Stadium, or even a sale at the local fashion emporium, we show up expecting company, and a lot of it. Sure, we can get claustrophobic and sometimes even scared, but after all, we're the ones who put ourselves there. Where butt-brush kicks in big time is where we get bumped and we don't expect it.

Another such "accident" of patient observation and analysis happened during a supermarket study we performed for a dog food manufacturer. While staking out the pet aisle, we noticed that while adults bought the dog food, the dog treats—liver-flavored biscuits and such—were more often being picked out by children or senior citizens. After giving it some thought, we realized that for the elderly, pets are *like* children, creatures to be spoiled with sweets. And while feeding Fido may not be any child's favorite chore, filling him up with doggie cookies can be loads of fun. Parents indulged their little ones' pleas for treats here just as they did over in the cookie aisle.

Because no one had ever noticed who exactly was buying pet treats, however, they were typically stocked near the top of the supermarket shelves. As a result, our cameras caught children actually climbing the shelving to reach the treats. We witnessed one elderly woman using a box of aluminum foil to knock down her brand of dog biscuits. Move the treats to where kids and little old ladies can reach them, we advised the client. They did so, and sales went up instantly.

Even the plainest truths can get lost in all the details of planning and stocking a store. A phrase I find myself using over and over with clients is this: The obvious isn't always apparent.

While studying the cosmetics section of a drugstore chain, we watched a woman in her sixties approach a wall rack, study it carefully and then kneel before it so she could find the one item she needed:

concealer cream, which, due to its lack of glamour, was kept at the very bottom of the display. Similarly, in a department store we watched an overweight man trying to find his size of underwear at a large aisle display—and saw him stooping dangerously low to reach them, down near the floor. In both cases, logic should have dictated that the displays be tailored to the shoppers who use them, not to the designers who made them. Move the concealer up, we advised, and put something aimed at younger shoppers down near the floor. Young shoppers will find their products wherever they're stocked.

In some studies, we synthesize every bit of information we can possibly collect into a comprehensive portrait of a store or a single department. A major jeans manufacturer wanted to know how its product was sold in department stores, so in one weekend we descended on four sites, two in Massachusetts and two in the Los Angeles area. Each department was similar—the jeans section was a square area that held from eight to twelve tabletop displays and some wall shelving. We started by drawing a detailed map of each, showing the displays and the aisles leading into and out of the sections but also where any signs or other promotional materials were posted. During that weekend we tracked a total of 727 shoppers and observed many more on camera. We paid particular attention to the "doorways," our term for any path leading into or out of an area of a store. Until the client knew which paths were most popular, it was impossible to make informed decisions about where to stock what or where to place the merchandising materials meant to lure shoppers.

By the time our study was completed, we could say what percentage of customers used which paths into each of the sections. Once we knew that, it was clear, for instance, that much of the signage was misplaced—common sense dictated that it be positioned to face the main entrance of the store, when in fact most jeans shoppers came upon the section from a completely different direction. Even the client's big neon logo and a monitor showing rock videos were facing the wrong way if their job was to signal to the greatest number of shoppers. We tracked shoppers from table to table, seeing where they stopped, what signs they read, whether they noticed the video monitors, and how they handled

the merchandise, including if they took anything to the dressing rooms. If they seemed to be showing jeans to a companion, we noted that, too. Our interviewers also questioned some of the shoppers captured on video so that their demographic information and their attitudes and opinions could be correlated with their behaviors—to see, for example, whether young shoppers with high school educations who say they depend on brand name when choosing jeans read price tags. After the research is done and the numbers are crunched and analyzed, we see what sense can be made of what we've learned.

For example, if we were to find that a high percentage of male shoppers buys from the first rack of jeans they encounter, and that these shoppers tend to enter the section through the aisle leading from men's accessories rather than from the women's side of the store or from the escalator, then we would advise our client to ask for the display table nearest men's accessories.

Or maybe there's another determining factor—maybe men who are accompanied by females and entering the section from the women's department buy more jeans than men who are alone. In that case, the best table would be nearest the women's merchandise. But no one knows for sure until we collect the data.

In other instances, we're hired to study some small retail interaction in great detail. A premium shampoo maker who wanted to know about the decision-making process of women shoppers who buy generic, or store-brand, beauty products commissioned one such project. The client was interested in the "value equation" women bring to each shopping experience—how does the shopper who buys from the generics section at the supermarket in the morning and then from Bloomingdale's in the afternoon decide which product she'll buy where? Does she judge that her skin deserves the premium brand but her hair can settle for the generic? Once upon a time, only the budget-conscious bought store brands, but now you find them in everyone's shopping basket. What's the secret?

Let's call her shopper number 24, a thirtysomething woman in yellow pants and a white sweater, accompanied by a preschool-age girl, who enters the health and beauty aisle of a supermarket at 10:37 A.M.

on a Wednesday morning. She has a handbasket, not a shopping cart, and has already selected store-brand vitamin C capsules and a large container of Johnson's baby powder. She is also holding a shopping list and a store circular. She goes directly to the shampoo shelves and picks up a bottle of Pantene brand, reads the front label, then picks up a bottle of the store brand and reads the front label, then reads the price tag on the Pantene, then reads the price on the store brand, and then puts the store brand in her basket and exits the section forty-nine seconds after she entered it. In that brief encounter, there was lots of data to collect—what she touched, what she read, and in what order—about twenty-five different data points in all. If, in one day, we track a hundred shoppers in that store's health and beauty aisle, it amounts to twenty-five hundred separate data entries. As the woman exits the section, we interview her, asking twenty questions in all. So each of the twenty-five data points has to be cross-tabulated with each of her twenty answers—a cross-tab challenge, take it from me. Until quite recently no university ever attempted such a study, and so it was left to the world's businesses—its retailers, banks, restaurant chains, manufacturers and designers of displays and packaging—to underwrite the creation of this science, which they did and continue to do by hiring us and sending us out into the field.

I make much of the accidental nature of the science of shopping, and perhaps it's because this all began almost by accident when I was a student and admirer of one of America's most esteemed social scientists, William H. Whyte, author of such highly influential books as *The Organization Man, The Last Landscape, City: Rediscovering the Center* and *The Social Life of Small Urban Spaces.* He was also the founder, in 1974, of the Project for Public Spaces, or PPS, which still exists and is still a magnificent contribution to the preservation and ongoing good health of the urban landscape.

William H. Whyte, or "Holly," as his friends called him, was, in his active days, a quixotic, beloved figure (he died in 1999). He had the white hair and aristocratic mien of a WASP banker, yet he had fallen in love with the streets of New York City and worked hard to learn how

people might best use them. Whyte's greatest contribution was his research into how people use public spaces—streets, parks, plazas and so on. Using time-lapse photography, hidden trackers and interviews, he and his associates would stake out some urban plaza or minipark, say, and study it, minute by minute, over the course of several days. By the time they finished, they could tell you everything about every bench, ledge, path, fountain and shrub, and especially how people interacted with them, using them as places to lunch, sun, socialize, people-watch, nap or just happily and peacefully loiter. Whyte and his colleagues would measure everything—the ideal width of a ledge for sitting; how sunlight, shade and wind affect park use; and how a public space's surroundings, the office towers or construction sites or schools or neighborhoods, determined the quality of life there.

Whyte, who started his career as an editor at *Fortune* magazine, was, essentially, a scientist of the street—the first one, which is amazing when you think of how long streets existed before he came along. His work has been used to make public spaces better and more useful to citizens, which in turn made cities better and more useful, too. Whyte's methods were a kind of lens through which a physical environment could be studied and improved, and my work on behalf of shopping owes a great deal to his methods.

Back in 1977, I was a part-time instructor at City University of New York, teaching courses in fieldwork techniques for the environmental psychology department. I was also working in an establishment of which I was part owner, the Ear Inn, a bar in downtown Manhattan. There, I had a customer who had been hired to design a system of signage at Lincoln Center, the performing arts complex that's home to the Metropolitan Opera House, Avery Fisher Hall—about a dozen theaters in all. He told me they needed someone to look into the usage and circulation patterns of the underground concourse that connected the buildings to parking garages and the subway. There was a small, makeshift gift shop down there at the time, but Lincoln Center wanted to see if a larger store might be viable there. First, though, they needed to make sure that a store wouldn't create congestion in the pedestrian walkways. With my customer's help, I got the job.

So I recruited a few of my students to help and we took some cameras, staked out our observation spots and went to work counting and mapping. The crowding question was easy enough to answer—we roped off an area exactly the size of the store they wanted to build, then watched and filmed pedestrians streaming through during the busiest times. We suggested then that with the room available, they should add some benches down there, to make it something of a destination rather than just a corridor. Our client declined to take our advice then, but today the benches are in place. I also strongly recommended that they double the size of the ladies' room, and they declined to take that advice, too. Today, thirty years later, the line at the ladies' room still goes out the door during busy times. Shameful.

As I was compiling the data to write the report and looking at the many hours of film I had shot, I realized that from one of the camera positions I could see inside the gift shop, all the way to the cash register. There, as I watched, two customers lined up to pay. One looked to be a wealthy woman, probably an opera-goer, who had piled a small tower of boxes on the counter. Next to her was a teenage girl whose purchase required just one small brown paper bag. I couldn't see enough to tell exactly what was going on, but I was intrigued.

I visited the shop the next day and talked to the clerk, who told me that the woman was the wife of a Mexican diplomat who had decided to buy some fancy music boxes as gifts to take home with her. The boxes were expensive, and she was buying about a dozen of them, for a total sale of close to $9,000. She needed to pay quickly, before intermission ended, and she had to arrange to have the boxes delivered to her. There was also the matter of having sales tax waived owing to her diplomatic status. A complicated transaction, to say the least.

But this had to wait while the clerk handled the transaction with the teenage girl, who had arrived at the register first bearing her selection—a ballerina pen.

It was clear even to an academic like me that the cash register procedure could stand a little reorganization and clarification. These two transactions should not be competing for the same clerk's attention. And then the lightbulb clicked on. Why not take the tools of urban

anthropology and use them to study how people interact with the retail environment?

Years earlier I had witnessed an argument between the esteemed sociologist and author Erving Goffman and Jack Fruin, the chief engineer of the Port Authority of New York and New Jersey, who was at that moment in the midst of a gigantic undertaking, the planning and construction of Newark International Airport. Jack was expressing his emphatic frustration with the world of academia; he had attempted to hire some scholar-experts to guide his engineers and architects in their work, but instead of the clear-cut advice he had hoped to receive, he was getting buried under the academics' typical inability to assert any fact, no matter how small, that hadn't been completely proven by research. Goffman held the intellectual high ground in their argument, but at one point I clearly remember thinking, *I'd have a lot more fun working for Jack than for Erving. Erving's hiding in his ivory tower. Jack is out there* doing *stuff.*

Not long after the Lincoln Center assignment, I was sitting with some friends at a nightclub in Greenwich Village. One of the guys at our table was a young executive with Epic Records, a division of CBS, and I described to him my bright idea of measuring what happens in stores—the thought that there might be something worth learning by turning scientific tools on shopping. And over the course of a few beers my idea must have sounded interesting, because the guy said, "Why don't you send me a proposal?"

Full of ambition the next morning, I rose early, dragged out my manual typewriter and drafted a plan. I sent it over quickly, then waited. For, oh, about a year. Of course I tried writing again and telephoning during that time, but no one ever returned my calls. These were the dark ages of the science of shopping, remember.

And then, out of the blue, I heard from a woman who was in charge of market research for CBS Records. She said that they had found my proposal in a dusty file somewhere and were all quite fascinated by it, and was I still interested in studying a record store?

Sure, I said, inwardly rejoicing that a major American corporation was actually going to underwrite—to the tune, I think, of about $5,000—my research into the habits of the modern shopper. I

immediately called a few of my students, assembled some notebooks and time-lapse cameras, and made my way to a record store in a northern New Jersey mall.

Now, nearly decades and close to two million hours of videotape and much personal observation later, that study seems almost charmingly rudimentary. But at the time, it felt as though the discoveries came flying fast and furious.

For instance: In the late '70s, when the study was being done, traditional singles—45 rpm records—were still big sellers. The store, wisely, displayed the *Billboard* magazine chart of bestselling singles near the racks of records, as a stimulus to sales. But our film showed that most buyers of 45s were adolescents—and the chart was hung so high on the wall that the kids had to stand on their toes and crane their necks to see what exactly was at the top of the chart. We suggested to the manager that the chart be lowered, and a week later he called to say that sales of 45s had gone up by 20 percent. Just like that! Lower the chart! It worked!

We spent a lot of time that weekend watching people in line to pay at what the retail industry calls cash/wraps. Regardless of what store designers and merchandise managers think, in many ways the cash/wrap area is the most important part of any store. If the transactions aren't crisp, if the organization isn't clear at a glance, shoppers get frustrated or turned off. Many times they won't even enter a store if the line to pay looks long or chaotic.

At this store, there were several big displays of new releases as soon as you walked in, just a few feet from the cashier. This was fine as long as the store was empty, but if customers were in line, their bodies completely hid the displays. Put up a stanchion and a velvet rope to keep the line off to one side, we suggested, and again, our advice had an instant effect—sales of records from the displays went up immediately.

Doesn't all this sound just the least bit obvious? It does to us, too, especially after we've spent so much time watching and filming and timing and interviewing and so on. Until then, however, these were the kinds of problems that had remained hidden in plain view.

While watching the record store customers, we noticed an odd

pattern: The LP section (this was pre-CD, remember) was always more crowded than cassettes, but sales were split evenly between the two formats. Following customers, the reason became clear: Because the LP covers were bigger, it was easier to read the song lists and see the photos, so cassette shoppers would browse in LPs, make up their minds, and then go to the tapes section to find their choices. Our suggestion was to make the aisles wider in LPs so that shoppers wouldn't feel crushed and rushed, a definite sales killer. Also, we thought the store should invest in more durable carpet for the sections that got significantly more traffic.

My final memory from that study comes from a video clip I still show to audiences: a young man shoplifting classical music tapes. Only after watching him take the tapes over and over on the film did I notice that the bag he slipped them into was from a chain that had no location at that mall. I passed this tidbit on to the client's security executive and told him that they should be watchful whenever such "wrong" bags were spotted in their stores (remember, this was before security tagging). I got back a note saying that they had prevented several thousands of dollars in theft using that method of detection.

And thusly, a science was born.

Before the science of shopping existed, there were at least two other ways to measure what took place in a store. The most common way of viewing a store is to simply examine "the tape"—the information that comes from the cash registers, which tells what was bought, when and how much of it. This is how virtually every retail undertaking, from the largest, most sophisticated multinational chain to the corner newsstand, does it. It's a fine way to see how the store as a whole has performed this quarter, or this year, or on any given day, or even time of day, and is, in the end, the measure of a store's overall health and growth (or decline) that counts. But as a diagnostic tool, or as a way of figuring out what happens in the store and how, it is not very useful. Sales research records your victories; what it does not do is look at where you are losing. What hurts is when you get the shopper in the door, down the aisle and in