



## When Charles Met Shirley

Charles Weiss knew Shirley Friedlander was the girl for him from the beginning.

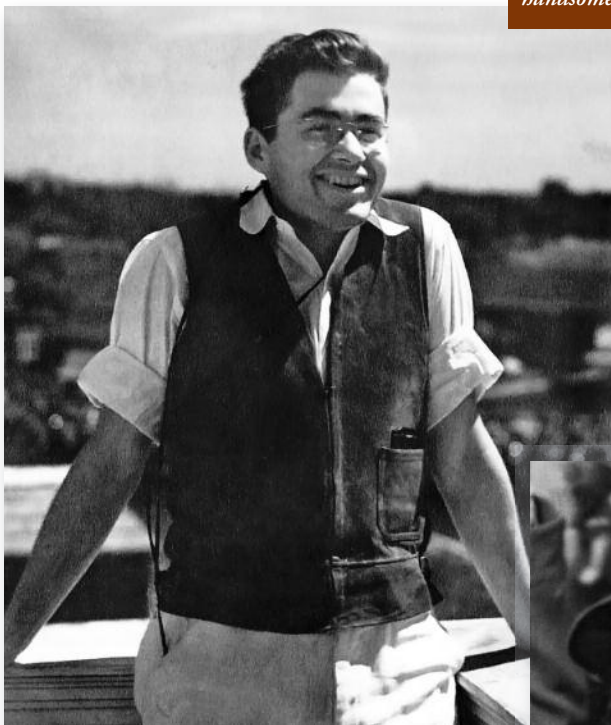
They met on a double blind date—no one knew each other except Charles and his buddy. Shirley wasn't even Charles' date—she was his friend's date. But Charles was drawn to the dark-eyed freshman from the start.

It was the spring of 1939, near the end of Shirley's freshman year and Charles' senior year. The foursome had agreed to go to one of the many Rutgers dances together. Charles, in possession of his father's car for the evening, drove around and picked everyone up. His own date was also named Shirley, but he soon had eyes for no one but Shirley Friedlander.

Clearly an intellectual, Shirley's wit was sharp, her opinions emphatic. Her dark eyes held a fiery energy. Her smiles were often wry ones, producing charming dimples.<sup>1</sup> No wonder that Charles was smitten.

Shirley, for her part, was intrigued by the smart, handsome senior sitting across the table. She had long preferred the company of "people who think," and the intelligent young biology student definitely fit the bill.<sup>2</sup> On that first night, "she listened to what I was telling her; she didn't ignore it," Charles said. To impress her, he picked up a napkin and sketched out a street layout of their location in New Brunswick.<sup>3</sup>

*"Shirley was intrigued by the smart, handsome senior..."*



*"Her dark eyes held a fiery energy."*



## Learning to Dance

After he met Shirley, Charles quickly learned how to dance during his summer at Woods Hole: "There was an open gazebo-type building at Woods Hole for people to relax in during the evenings. There was a record player there, and there were women around, so there were always people to partner with. I saw how to move the feet, and it was never a problem. Then, once Shirley and I became a permanent duo, we became pretty smooth on the dance floor!"<sup>5</sup>



*Shirley and Charles at a Rutgers formal dance*

By the end of the night, Charles decided he needed to know more about Shirley Friedlander.

The next day, he knocked on the door of her dormitory at NJC, but was told she was at the NJC library doing research.<sup>4</sup> Charles was an old hand at libraries, having spent much time at the Rutgers library reading books and news magazines. He strode over to the NJC library to look for Shirley, excited that the woman he'd found so intriguing was spending time in one of his favorite places.

At the library, Charles found Shirley and struck up a conversation. "From that point on, I should've been a fish, because I was hooked!"

Charles laughed.<sup>6</sup>

Charles immediately made a date with Shirley for the Rutgers spring formal dance. From then on, he pursued Shirley with the attentiveness of a man smitten: He stopped by her dorm to offer her rides, carried her books, and regularly called her to make dates. Shirley liked the attentions of the handsome, studious senior. Set on being a scholar, it was important to her that Charles appreciated her intelligence and her many intellectual interests. After meeting Charles, she said, "there weren't many other dates—I was always with Charles."<sup>7</sup>

As Shirley and Charles saw more and more of each other that spring, it became clear to both that they had much in common. In addition to their mutual dedication to academics, they discovered that they both enjoyed the arts, in particular theater and classical music. Early on, Charles gave Shirley a portable record player, and then "had the problem of supplying her with records," he laughed. "It was a way of keeping the irons in the fire!"

Charles had a reason for keeping a few irons in the fire: A senior, he would be graduating at the end of the semester, while Shirley planned to

continue her studies at NJC. The new couple would soon be apart for long stretches of time while Charles pursued his career as a biologist and Shirley continued her studies.

## War Comes to Europe

One of Charles' mentors at Woods Hole Oceanographic Institution was Selman Waksman, then director of marine bacteriology at Woods Hole and later a Nobel Prize winner for his work in the discovery of streptomycin, the second medically effective antibiotic and the first antibiotic effective against tuberculosis.

Waksman had immigrated to the U.S. from Russia as a young man.

"The war broke out in Europe in August of '39, when Hitler invaded Poland," Charles remembered. "And Waksman, having

come from Russia, was quite upset about all this, although he was an American citizen by then.

"I remember the day the war broke out. It was Sunday, and Waksman rushed to get *The New York Times* to see more news about it. But only the early editions were delivered to Woods Hole on the overnight train, so he was reading yesterday's newspaper.

"It was one of those little flickers of memory that I'll never forget."



## Charles' First Cruise on the Atlantis

Henry Bigelow, the director of Woods Hole Oceanographic Institution (WHOI), firmly believed that all oceanographic researchers should do field research—that is, they should make regular research trips aboard the WHOI research vessel, the *Atlantis*. A 142-foot ketch, the *Atlantis* carried a crew of 17 and had room for five scientists and a below-decks laboratory. It made regular forays into the deep waters of the Atlantic Ocean, staying at sea for several days at a time.<sup>8</sup>

When Charles began his internship at WHOI in 1939, he was no exception to Bigelow's expectations. After disembarking from his first research voyage aboard the *Atlantis*, Bigelow called Charles into his office.

"Well, did you get seasick?" Bigelow asked.

Charles smiled. "I did my job!" was all he would reply.<sup>9</sup>

The summer of 1939 came quickly. Charles, armed with a bachelor's degree in bacteriology and limnology, traveled to Massachusetts for his summer fellowship at Woods Hole Oceanographic Institution (WHOI). Shirley went back to New York, where she worked selling shoes that summer. But the connection between them, though still fledgling, was strong. They kept in touch via letters and postcards, and Charles soon had good news to tell Shirley: He had been accepted into a joint graduate program to study microbiology at Rutgers' New Jersey Agricultural Experiment Station, and physical oceanography at Harvard University. In the fall, he would begin studying marine microbiology at the New Jersey Agricultural Experiment Station—a part of the Rutgers campus only a few blocks from NJC and Shirley.<sup>10</sup>

In the fall, Charles moved back to New Brunswick to start graduate work. Shirley began her sophomore year with a move to the French House, where she got full-time practice speaking French with her suitemates.<sup>11</sup> Though she was still enamored with the French language, as the semester went on she found herself becoming bored in her French classes: Her high school teachers at Walton had done such a good job that she now knew just as much French as her professors. Wanting an academic challenge, Shirley found her interest piqued by her economics classes, and she began to ponder switching her major.

Charles continued to court Shirley—carrying her books, driving her places, and taking her on dates. Shirley was equally devoted to Charles, and the two quickly became a steady pair. That spring, when Charles moved to Harvard University, Shirley rode the train to Boston to visit him, staying in a hotel on Harvard Square.<sup>12</sup> In May, Charles took Shirley to visit the New York World's Fair.<sup>13</sup>



*The research vessel Atlantis*

Photo courtesy of Woods Hole Oceanographic Institution



*Shirley beginning her sophomore year*



*Shirley as counselor at Camp Ma-He-Tu on the Hudson River, summer 1940*

That summer, Charles headed off to Woods Hole again, and Shirley went to Camp Ma-He-Tu on the Hudson River to work as a camp counselor, or a “nurse-maid to over 40 kids!” as Shirley remembered.<sup>14</sup> Charles drove down to visit her in August, and the two of them drove to the top of nearby Bear Mountain to take pictures with the new camera Charles had given Shirley.<sup>15</sup> Shirley in turn visited Charles at Woods Hole in September, and the two had several fun days there before the fall semester began.

Shirley began her junior year with a flurry of energy and extracurriculars. She was elected president of the NJC League of Women Voters, and secretary of Kappa Iota, an economics society. President Franklin D. Roosevelt was up for re-election to his third term that fall, and Shirley played a key role in organizing a series of campus forums and debates focused on the elections—she even helped recruit Franklin D. Roosevelt, Jr. to speak at the forum on behalf of his father.<sup>16</sup>

In the spring, Shirley decided that she had learned all the French she could learn at NJC. Though she remained an active member of the French Club, she switched her major to economics, a field that fascinated her and offered new ways of thinking about the world. Switching majors mid-year did not harm her academic standing, however: At the end of the academic year, Shirley was one of only two NJC juniors to be inducted into the Phi Beta Kappa honor society.<sup>17</sup>

Charles continued with his graduate work at Harvard, where he was studying physical oceanography. But by the fall of 1940, rumblings of the war in Europe had begun reaching across the ocean. Woods Hole Oceanographic Institution had begun its first war-related research the previous summer: a Navy-sponsored project studying the organisms that grow on ships’ hulls and figuring out how to eliminate them.<sup>18</sup> Charles had impressed his mentors during his two summers of work there, and in the fall of 1940—with the United States’

*Shirley at Woods Hole*



## Water Research

In the fall of 1939, Dr. Waksman had given Charles reprints of several research papers so that Charles could familiarize himself with the work at Woods Hole Oceanographic Institution. Setting out for a canoe ride near New Brunswick one day, Charles had tucked the papers into his jacket pocket. As he helped Shirley into the canoe, she missed her step, and both of them toppled into the shallow water! Laughing, they helped each other up, but Charles realized with dismay that the papers had gotten wet. Shirley took the papers back to her room, hung them up to dry, and then ironed them so that Charles could read them.<sup>19</sup>



## Questionable Equipment

"On that first trip south, to find out the basic biology of the waters at Beaufort and Pensacola, I had to stop at a couple of the Navy yards. I drove from Norfolk on the way to Beaufort, and I stopped overnight at New Bern, North Carolina. There's a hotel there. And I had a lot of gear, including one piece of equipment made of copper, an evaporator. You put your evaporating dishes on it to slowly heat up so the water vapor

would be driven out, and then you could weigh the dried particulate content of the water sample. And it looks rather innocent, with circular openings and different sized porcelain caps.

But when the bellman came out to pick up all my bags to take them inside, he looks at that strange contraption. He says to me, 'Is that your private still?'"<sup>20</sup> —Charles Weiss

entry into the war still months away—WHOI administrators suggested he postpone his graduate studies and instead work full time on the ship fouling project.

The first thing Charles did for the project was travel to potential study sites to assess their usefulness for the fouling project. Charles' father had let him trade in his car, a Packard Six, for one of the last cars coming off the assembly line before the factories converted over to war work; Charles chose a Ford coupe, with back seats that folded up for more storage space.

"I think that's why they hired me to do all the fieldwork—I could carry all the field and lab gear around with me!" Charles laughed.

Shirley heard from Charles frequently—the two kept in touch by sending each other penny postcards nearly every day. Even though they were not together during this time, their constant communication kept their bond strong.<sup>21</sup>

Shirley, meanwhile, had secured an internship in Washington, D.C., for the summer of 1941. One of her professors that spring was a specialist in constitutional law, and when Shirley expressed interest in the subject, he helped her arrange a month-long position in a federal office.

Shirley loved the hustle and bustle of being in the nation's capital. She quickly made friends with her fellow interns, and several of them took a weekend trip to Annapolis together. Shirley acted as tour guide to several groups of visiting friends that summer—including Charles' parents, "Mother and Dad Weiss," who came to visit the capital on Labor Day weekend.

As Charles continued traveling for the Navy project, Shirley began her senior year in the fall of 1941. As a junior, her strong interest in economics had led her to join the NJC Co-op Store, a cooperative campus bookstore begun by enterprising students when Shirley was a freshman. Now a senior, Shirley served as chairman of the store's board of directors. Called simply "Co-op Store," the organization provided its student owners with a "lesson in economic democracy," with every owner/worker having an equal vote in operations and sharing in the store's profits.<sup>22</sup> Shirley also threw herself into her jobs as co-editor of NJC's



*Charles in the microbiology lab at Woods Hole Oceanographic Institution*



*"Mother and Dad Weiss" on the Capitol steps during Shirley's internship in D.C.*

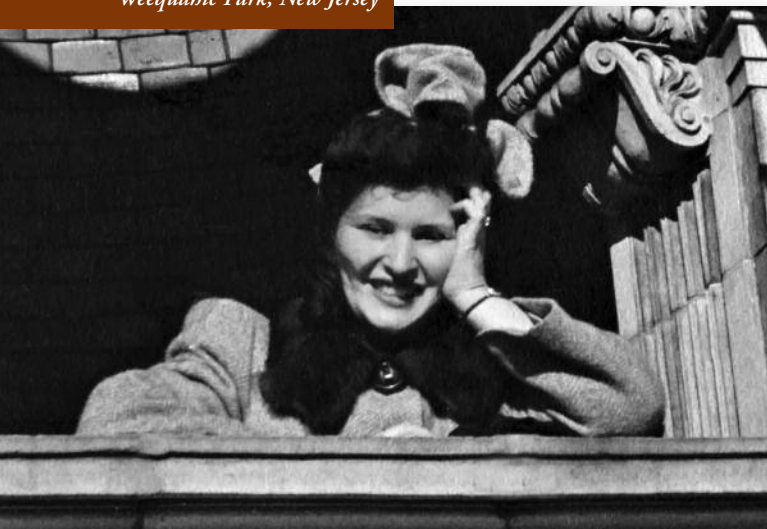
## An Early Visit to Chapel Hill

One trip from Florida back to Woods Hole brought Charles through Chapel Hill, for the first time. He had heard good things about the School of Public Health at the University of North Carolina and was considering applying there, so he decided to stop and see if he could talk with the dean, H.G. Baity (who was a North Carolina native and also a Harvard graduate).<sup>23</sup> Baity had just stepped out to lunch when Charles

arrived asking for an appointment, so Charles went to lunch on Franklin Street and then went back to the dean's office. But Baity had taken a long lunch, and no one knew where he was, so Charles gave up and drove on to his next stop in Danville, Virginia.

It was an anticlimactic visit, but, as the Weisses would later remark, just the first of many.

Shirley, "two days engaged" in Weequahic Park, New Jersey

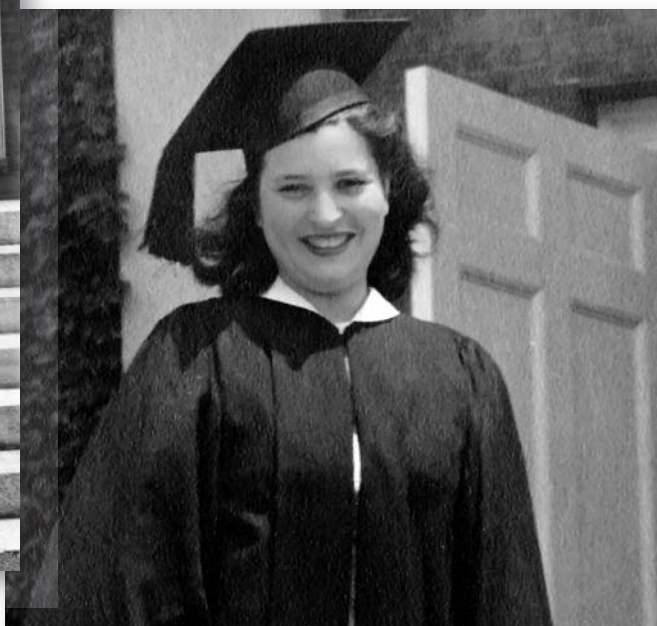
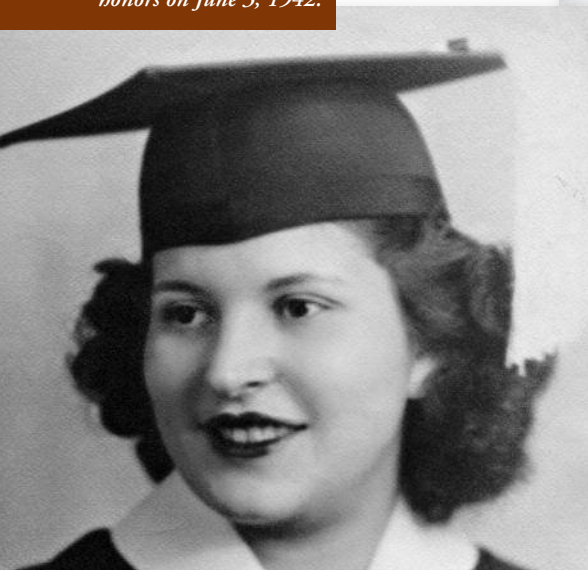


literary magazine, *Horn Book*, and co-editor of the 1942 *Quair*, NJC's yearbook. From writing, editing, scheduling, choosing photographs, and planning the layout, Shirley was involved in nearly every aspect of the *Quair*'s publication. She even borrowed Charles' expertise in photography, including several of his Kodachromes of campus in the final publication.<sup>24</sup>

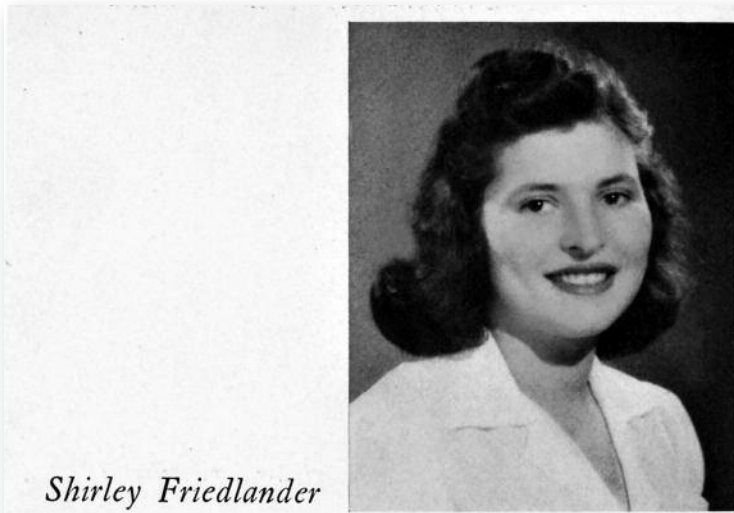
That fall of 1941, people across campus and across the nation were uneasily monitoring the wars in Europe and Asia, wondering if the United States would be able to stay out of the conflict. International tensions were increasing, testing the United States' neutrality. Then, on December 7, 1941, the unthinkable happened: Japanese aircraft attacked the U.S. naval base at Pearl Harbor, Hawaii.

When the United States declared war on Japan, Germany, and Italy, Charles' contribution to the Navy project took on greater significance: Not only was he contributing to science, he was also helping the United States' war effort. Organisms growing on ships' hulls increased the drag on the Navy's ships as well as the amount of fuel required to operate them; with money and fuel both in short supply, Charles' research was of vital importance to the Navy.<sup>25</sup>

Shirley graduated with honors on June 3, 1942.







*Shirley Friedlander*

Economics . . . Efficiency-plus . . . Emphatic  
. . . League of Women Voters President  
. . . Phi Beta and intellectual aristocrat . . .  
Consistent liberal . . . Dimples . . . Smiles  
wryly . . . Otchi Tchornia eyes and ephemeral  
roommates . . . Prefers people who think . . .  
Intense preoccupation with *Quair*, Co-op  
Store and theatre-going . . . Accent on  
French and all emphasis on Charles . . .  
June bride.

1665 Townsend Ave., New York, N. Y.

The fact that Charles' Navy work exempted him from the draft was also not lost on Shirley, who was finishing up her senior year just as the United States' war effort increased enormously. She and Charles continued communicating daily as the nation mobilized for war.

In February 1942, however, Shirley and Charles were thinking of happier things than the war. Shirley's graduation was just over the horizon, and after three years of courtship, she and Charles thought that it was finally time to do something "more serious than write notes on penny postcards." The two decided to marry.<sup>27</sup> A week before Shirley's 21<sup>st</sup> birthday, Charles took the train home for the weekend and proposed.<sup>28</sup>





*Wedding day celebrations*

But before they could tie the knot, Shirley's godmother, Gary, had to approve. Not only did Gary want to meet Charles, but she also wanted to meet his friends, to make sure that he was "hanging out with the right people." Luckily for Charles, Gary "was very much impressed that this group of four or five of us had a fine focus on studying nature and life forms," said Charles.<sup>29</sup> The good will went both ways: After meeting Gary and sampling her hospitality, Charles' friends all wanted to join her extended family.

Shirley graduated with honors on June 3, 1942. With Gary's approval and a degree in economics in hand, Shirley was now ready to start her life with Charles.

On June 7, with Lillian by Shirley's side as maid of honor, Shirley and Charles married each other at Woodlawn, a beautiful house on the NJC campus. The same day, they left by train for their honeymoon in New Orleans—the first of many wonderful trips together as Charles and Shirley Weiss.<sup>30</sup>

